

Historical phonology of Mataguayan

Andrey Nikulin

Javier Carol

Topics in Phonological Diversity 3



Topics in Phonological Diversity

Editors: Natalia Kuznetsova (Università Cattolica del Sacro Cuore), Cormac Anderson (Max Planck Institute for Evolutionary Anthropology, Leipzig), Shelece Easterday (University of Hawai'i, Mānoa)

In this series:

1. Tallman, Adam J. R., Sandra Auderset & Hiroto Uchihara (eds.).
Constituency and convergence in the Americas.
2. Bracks, Christoph. Compound Intonation Units in Totoli: Postlexical prosody and the prosody-syntax interface.
3. Nikulin, Andrey & Javier Carol. Historical phonology of Mataguayan.

ISSN (print): 2943-6559

ISSN (electronic): 2943-6540

Historical phonology of Mataguayan

Andrey Nikulin

Javier Carol



Andrey Nikulin & Javier Carol. 2024. *Historical phonology of Mataguayan*
(Topics in Phonological Diversity 3). Berlin: Language Science Press.

This title can be downloaded at:

<http://langsci-press.org/catalog/book/413>

© 2024, Andrey Nikulin & Javier Carol

Published under the Creative Commons Attribution 4.0 Licence (CC BY 4.0):

<http://creativecommons.org/licenses/by/4.0/> 

ISBN: 978-3-96110-474-1 (Digital)

978-3-98554-103-4 (Hardcover)

ISSN (print): 2943-6559

ISSN (electronic): 2943-6540

DOI: 10.5281/zenodo.13907413

Source code available from www.github.com/langsci/413

Errata: paperhive.org/documents/remote?type=langsci&id=413

Cover and concept of design: Ulrike Harbort

Typesetting: Andrey Nikulin, Sebastian Nordhoff

Proofreading: Carrie Dyck, Elliott Pearl, Frederic Blum, Jeroen van de Weijer,

Killian Kiuttu, Liam McKnight, Ludger Paschen, Maria Zielenbach, Nina van

der Vlugt, Olga Olina, Sandra Auderset, Yuzhi Deng

Fonts: Libertinus, Arimo, DejaVu Sans Mono

Typesetting software: $\text{X}_{\text{L}}\text{A}_{\text{T}}\text{E}_{\text{X}}$

Language Science Press

xHain

Grünberger Str. 16

10243 Berlin, Germany

<http://langsci-press.org>

Storage and cataloguing done by FU Berlin

Freie Universität  Berlin

Our colleague Hannes Kalisch left this world on the very same day this book was submitted. It is with great sadness that we dedicate it to his memory. May his love for the cultures of the Chaco be never forgotten.

Contents

| | |
|---|-----------|
| Acknowledgments | vii |
| Abbreviations | ix |
| 1 Introduction | 1 |
| 1.1 Mataguyan languages | 1 |
| 1.1.1 Maká | 1 |
| 1.1.2 Nivaêcle | 4 |
| 1.1.3 Chorote | 5 |
| 1.1.4 Wichí | 7 |
| 1.1.5 Lexicostatistic classification | 8 |
| 1.1.6 External relations | 11 |
| 1.2 Theoretical tenets | 15 |
| 1.3 Previous research | 16 |
| 1.4 Notation conventions | 18 |
| 1.4.1 Transcription | 18 |
| 1.4.2 Special characters | 20 |
| 1.4.3 Plurals | 21 |
| 1.4.4 Allomorphy of the third-person index in verbs | 21 |
| 1.4.5 Glottonyms | 22 |
| 1.5 Structure of this book | 22 |
| 2 Consonants | 25 |
| 2.1 Plain onsets and codas | 26 |
| 2.1.1 PM <i>*p</i> | 26 |
| 2.1.2 PM <i>*t</i> | 29 |
| 2.1.3 PM <i>*ts</i> | 35 |
| 2.1.4 PM <i>*k</i> | 38 |
| 2.1.5 PM <i>*q</i> | 43 |
| 2.1.6 PM <i>*ʔ</i> | 45 |
| 2.1.7 PM <i>*ϕ</i> | 52 |
| 2.1.8 PM <i>*t̥</i> | 55 |

Contents

| | | |
|----------|--|------------|
| 2.1.9 | PM *s | 57 |
| 2.1.10 | PM *x | 60 |
| 2.1.11 | PM *χ | 63 |
| 2.1.12 | PM *h | 65 |
| 2.1.13 | PM *w | 67 |
| 2.1.14 | PM *l | 70 |
| 2.1.15 | PM *j | 73 |
| 2.1.16 | PM *m | 76 |
| 2.1.17 | PM *n | 77 |
| 2.1.18 | Underdifferentiated consonants | 81 |
| 2.2 | Glottalized onsets | 83 |
| 2.2.1 | Glottalized stops | 84 |
| 2.2.2 | Glottalized sonorants | 86 |
| 2.2.3 | Glottalized fricatives | 88 |
| 2.2.4 | Status of glottalized consonants | 91 |
| 2.3 | Preglottalized codas | 95 |
| 2.4 | *CX-clusters (consonant + a guttural fricative) | 100 |
| 2.5 | Other consonant clusters | 105 |
| 2.6 | Syllabic consonants | 110 |
| 2.6.1 | Syllabic *ɫ | 111 |
| 2.6.2 | Syllabic *n | 116 |
| 2.6.3 | Syllabic *t | 120 |
| 2.6.4 | Syllabic consonants as opposed to consonant clusters | 123 |
| 3 | Vowels | 125 |
| 3.1 | PM *i | 125 |
| 3.2 | PM *e | 130 |
| 3.3 | PM *ä | 136 |
| 3.4 | PM *a | 139 |
| 3.5 | PM *â | 146 |
| 3.6 | PM *o | 153 |
| 3.7 | PM *u | 156 |
| 3.8 | Insufficient evidence for reconstruction of a specific vowel | 161 |
| 4 | Word-level prosody | 163 |
| 4.1 | Monosyllabic words | 165 |
| 4.1.1 | ˘ | 165 |
| 4.1.2 | - | 168 |

| | | |
|----------|--|------------|
| 4.2 | Disyllabic words | 170 |
| 4.2.1 | $\sim\sim$ | 170 |
| 4.2.2 | $\sim-$ | 173 |
| 4.2.3 | $-\sim$ | 176 |
| 4.3 | Words with three or more syllables | 182 |
| 4.3.1 | $\sim\sim-$ | 182 |
| 4.3.2 | $\sim\sim\sim$ | 185 |
| 4.3.3 | $-\sim\sim$ | 190 |
| 4.4 | Conclusions | 193 |
| 5 | Phonotactics and processes | 195 |
| 5.1 | Phonotactics | 195 |
| 5.1.1 | Onsets | 195 |
| 5.1.2 | Codas | 196 |
| 5.1.3 | Nuclei | 198 |
| 5.2 | Consonantal and vocalic stems | 198 |
| 5.2.1 | Glottal truncation in suffixation | 198 |
| 5.2.2 | Behavior of stem-final $^*\chi$ in suffixation | 201 |
| 5.2.3 | Velar weakening | 203 |
| 5.2.4 | Ban on *h after fricatives | 205 |
| 5.2.5 | Metathesis | 205 |
| 5.2.6 | Metathesis and glottal reallocation | 206 |
| 5.2.7 | Absence of a vocalic stem | 207 |
| 5.3 | Allomorphs of prefixes | 209 |
| 5.4 | Irregular verbs | 210 |
| 6 | Maká | 211 |
| 6.1 | Consonants | 212 |
| 6.1.1 | PM $^*\phi$ | 212 |
| 6.1.2 | Loss of the word-initial glottal stop | 212 |
| 6.1.3 | PM *h | 212 |
| 6.1.4 | PM *ji | 213 |
| 6.1.5 | Destiny of glottalized sonorants | 213 |
| 6.1.6 | Destiny of preglottalized codas | 214 |
| 6.1.7 | Glottal insertion in monosyllables | 216 |
| 6.1.8 | Fricative + $^*\chi$ | 216 |
| 6.1.9 | Other consonant clusters | 217 |
| 6.1.10 | Syllabic consonants | 219 |

Contents

| | | |
|----------|---|------------|
| 6.2 | Vowels | 219 |
| 6.2.1 | Maká vowel shift | 219 |
| 6.2.2 | Maká <i>j</i> following high vowels | 233 |
| 6.3 | Word-level prosody | 234 |
| 7 | Nivaçle | 235 |
| 7.1 | From Proto-Mataguayan to Nivaçle | 236 |
| 7.1.1 | Consonants | 236 |
| 7.1.2 | Vowels | 262 |
| 7.1.3 | Word-level prosody | 263 |
| 7.2 | Innovations in Nivaçle dialects | 269 |
| 7.2.1 | Reflexes of * <i>ã</i> in Nivaçle dialects | 270 |
| 7.2.2 | Variation between <i>ji</i> and <i>i</i> | 274 |
| 7.2.3 | Variation between <i>Cʔbu</i> and <i>Cʔu</i> | 274 |
| 7.2.4 | Delateralization before Ni <i>ʔ</i> | 275 |
| 7.2.5 | Variation before Ni <i>sC-</i> and <i>ʃC-</i> | 275 |
| 7.2.6 | Shichaam Lhavos <i>i</i> and Chishamnee Lhavos <i>e</i> | 276 |
| 7.2.7 | Sporadic vowel raising in Yita' Lhavos | 276 |
| 7.2.8 | Realization of /ij/ | 277 |
| 7.2.9 | Intervocalic ejectives | 277 |
| 7.2.10 | Progressive vowel assimilation | 277 |
| 8 | Chorote | 279 |
| 8.1 | From Proto-Mataguayan to Proto-Chorote | 280 |
| 8.1.1 | Consonants | 280 |
| 8.1.2 | Vowels | 314 |
| 8.1.3 | Word-level prosody | 321 |
| 8.2 | From Proto-Chorote to the contemporary varieties | 327 |
| 8.2.1 | Palatalization | 328 |
| 8.2.2 | Consonants | 338 |
| 8.2.3 | Vowels | 350 |
| 8.2.4 | Word-level prosody | 363 |
| 9 | Wichí | 365 |
| 9.1 | From Proto-Mataguayan to Proto-Wichí | 366 |
| 9.1.1 | Consonants | 366 |
| 9.1.2 | Vowels | 400 |
| 9.1.3 | Word-level prosody | 406 |
| 9.1.4 | Watkins' Law as a regular morphological change in Wichí | 412 |

| | | |
|-----------|--|------------|
| 9.2 | From Proto-Wichí to the contemporary Wichí varieties | 416 |
| 9.2.1 | Consonants | 419 |
| 9.2.2 | Vowels | 454 |
| 9.2.3 | Word-level prosody | 465 |
| 10 | Dictionary | 467 |
| 10.1 | <i>Bona fide</i> PM etymologies | 467 |
| 10.2 | Derivational affixes (nouns) | 574 |
| 10.3 | Valence and spatial suffixes or clitics | 578 |
| 10.4 | Demonstratives | 582 |
| 10.5 | Inflectional prefixes | 585 |
| 10.6 | Inflectional suffixes | 591 |
| 10.7 | MN only | 592 |
| 10.8 | ChW only | 604 |
| 10.9 | Wichí and Iyojwa'aja' | 626 |
| 10.10 | Possible borrowings and Wanderwörter | 630 |
| 11 | Conclusion | 639 |
| | References | 643 |
| | Index | 657 |
| | Name index | 657 |

Acknowledgments

The authors wish to thank the following individuals for making this study possible.

First of all, we are indebted to all Chorote and Manjui who patiently taught Javier Carol their language(s) in the communities of Misión Chorote I, Parcela 42, Lapacho I, Misión La Paz, La Merced Nueva, La Estrella, La Bolsa, Santa Rosa/Wonta, Abizai, and San Eugenio–San Agustín, and particularly to Víctor Díaz (“Pelayo”), Héctor Sarmiento, Julián Gómez, Nicasio Carrizo, Juan and Claudio González, Sebastián Frías, Roberto Valentín, the Palmas, Artín and Franco Bravo, Gustavo González, Pablo Segundo, Juan Paredes, Tomás Vera, César Pérez, Carlino Álvarez (Neiwi’), Florencio Vázquez, José López, Rogelio López, Maycol Saldívar, Silverio García, Aurelia Leguizamón, Víctor Fermín, Clarita Martínez, Lidia Martínez, and Fanny Díaz.

We are also grateful to Analía Gutiérrez for productive conversations on the phonology of Nivaçle and for her generosity with linguistic data.

We thank Andrés Salanova for introducing the authors one to each other. Andrey Nikulin is further grateful to him for providing excellent working conditions during his postdoctoral fellowship at the University of Ottawa, with financial support from the Social Sciences and Humanities Research Council (SSHRC) by means of an Insight grant (#435-2018-1173, Principal Investigator: Andrés Pablo Salanova).

We are further thankful to all individuals who shared relevant literature with us: Ana Fernández Garay, Analía Gutiérrez, Andrés Salanova, Cristina Messineo, Eric Hunt, Lyle Campbell, Micaela Gaggero Fiscella, Nicholas Drayson, pa’i Nilo Damián Zárate López, Paola Cúneo, J. Pedro Viegas Barros, Silvia Spinelli, and Temis Tacconi.

The main results of our study were presented at a seminar held by the Institute of Linguistics of the Faculty of Philosophy and Letters at the University of Buenos Aires (*Instituto de Lingüística de la Facultad de Filosofía y Letras de la Universidad de Buenos Aires*) on May 15, 2023. We are grateful to the audience for the fruitful discussion.

We thank the editors of the Topics in Phonological Diversity series – Natalia Kuznetsova, Cormac Anderson, Shelece Easterday – and the technical staff of

Acknowledgments

Language Science Press for making this publication possible, and are particularly indebted to the reviewers of this volume for their careful reading of different versions of the manuscript and for their insightful comments. The community proofreaders have helped us get rid of many typos and inconsistencies.

Needless to say, all remaining errors are our own.

Abbreviations

Glottonyms

| | | | |
|--------|-----------------------|-----|------------------|
| ChL | Chishamnee Lhavos | Mj | Manjui |
| ChL-Pi | Pilcomayeño | MN | Maka and Nivaçle |
| | Chishamnee Lhavos | Ni | Nivaçle |
| ChL-Py | Central Paraguayan | PCh | Proto-Chorote |
| | Chishamnee Lhavos | PM | Proto-Mataguayan |
| ChW | Chorote and Wichí | PW | Proto-Wichí |
| Ijw | Iyojwa'aja' | ShL | Shichaam Lhavos |
| I'w | Iyo'awujwa' | Vj | Vejoz |
| LB | Lower Bermejeño Wichí | 'Wk | 'Weenhayek |
| Mk | Maká | YL | Yita' Lhavos |

Glosses

| | | | |
|--------|---------------------------------|------|---|
| A | agent of a transitive verb | IND | indicative |
| ACT | active | INTR | intransitive |
| ALZ | alienizer | IPFV | imperfective |
| APPL | applicative | IPA | International Phonetic Alphabet |
| CAUS | causative | IRR | irrealis |
| CISL | cislocative | LOC | locative |
| DEM | demonstrative | NFH | non-firsthand |
| DP | distant past | NIND | non-indicative |
| GNR | generic or indefinite possessor | NOM | nominative |
| HAB | habitual | P | patient of a transitive verb |
| HEN | suffix <i>-hen</i> | PL | plural |
| I | I-class verb | POSS | possessive |
| IMP | imperative | REFL | reflexive |
| IMPRS | impersonal | RES | resultative |
| INACT | inactive | S | sole participant of an intransitive verb |
| INCORP | incorporation | | |

Abbreviations

| | | | |
|----------------|---|----|------------------|
| S _A | S participant aligned with A participant | T | T-class verb |
| S _P | S participant aligned with P participant | TH | thematic segment |
| SUB | subordinator | TR | transitive |
| | | WA | WA-class verb |

1 Introduction

Mataguayan is a small language family of Southern Chaco (South America). It includes at least four distinct languages, of which two show considerable internal diversity: Maká (Glottocode [maca1260]), Nivaçle ([niva1238]), Chorote (with its varieties Iyojwa'aja' [iyoj1235], Iyo'awujwa' [iyow1239], and Manjui), and Wichí (a dialect continuum which includes varieties such as 'Weenhayek [wich1262], Lower Pilcomayéño, Vejoz, and Southeastern). In this book, we systematically apply the comparative method to the extant Mataguayan varieties in order to arrive at a reconstruction of Proto-Mataguayan (= PM) phonology and lexicon.

Basic facts on the individual Mataguayan languages are presented in §1.1. The theoretical tenets of this study are discussed in §1.2. §1.3 surveys all published studies which deal with the reconstruction of Proto-Mataguayan and the historical development of individual Mataguayan languages. §1.4 makes explicit our notation conventions and §1.5 details the structure of this book.

1.1 Mataguayan languages

This section presents some basic facts on each Mataguayan language: Maká (§1.1.1), Nivaçle (§1.1.2), Chorote (§1.1.3), and Wichí (§1.1.4).

1.1.1 Maká

Maká (Glottocode [maca1260]) is the native language of the Maká people of Paraguay. Most speakers currently live in Nueva Colonia Indígena Maká, a community located within the city of Mariano Roque Alonso, in the Gran Asunción metropolitan area (Central department). In addition, some Maká live in the communities of Qemkuket (Presidente Hayes department) and Ita Paso (Itapúa department), as well as in the proximities of Ciudad del Este (Alto Paraná department) (Messineo 2015: 128). The 2012 Paraguayan census (Dirección General de Estadística, Encuestas y Censos 2014) reports the following number of ethnic Maká by department: 1 228 in the Central department, 436 in Presidente Hayes, 32 in Itapúa, 167 in Alto Paraná, 20 in Boquerón (total population in Paraguay: 1 888). In the Argentine territory, the 2022 Argentine census reports 13 ethnic

1 Introduction

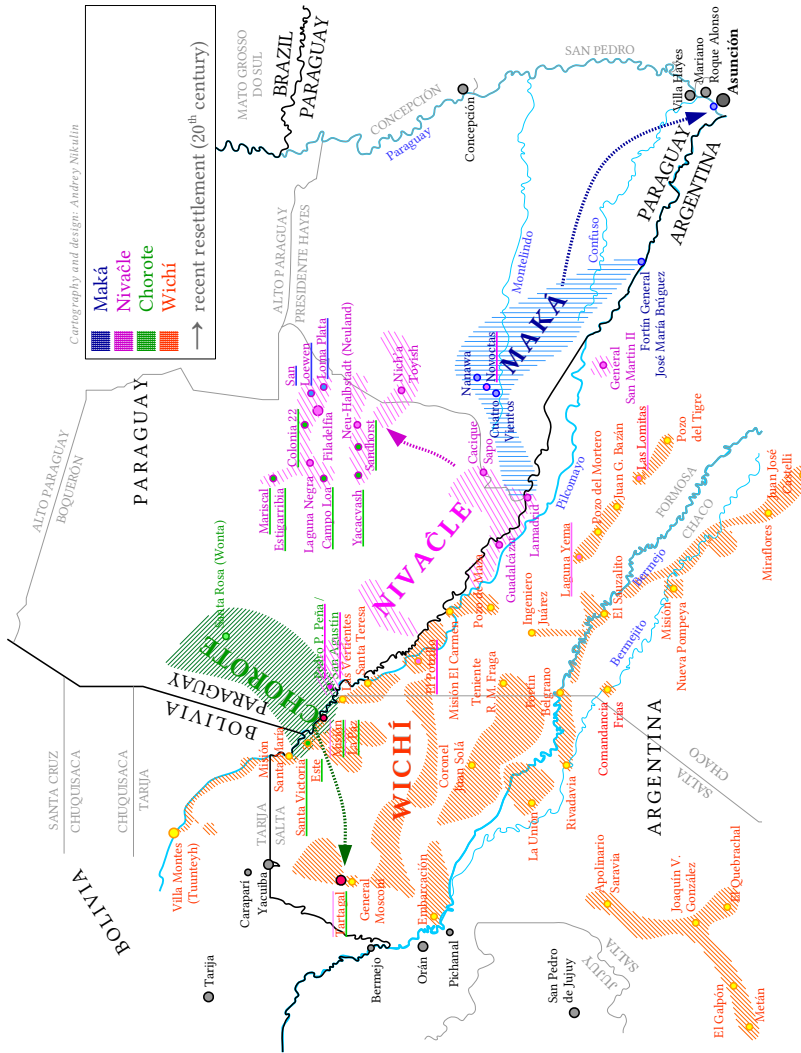


Figure 1.1: Map of the Mataguayan-speaking area

Maká, including 5 who speak or understand the language (Instituto Nacional de Estadística y Censos 2024). In earlier literature, the language and the people are sometimes called Enimagá, Towothli, Cochaboth, or Lengua.

Before the Chaco War (1932–1935), the Maká resided in the Paraguayan Chaco, between the headwaters of the Verde, Confuso, and Montelindo Rivers. Their centers were Cuatro Vientos, Nanawa, and Laguna-Guasú, and they are reported to have been divided into two groups, Fisket Łeĩets and Aseptiket Łeĩets, who possibly spoke slightly different dialects (Beliaeff 1934, Chase-Sardi 1972, Gerzenstein 1994: 28). After the Chaco War, most of the Maká were transferred to Colonia Fray Bartolomé de las Casas, just across the Paraguay River from Puerto Botánico (Asunción), and in 1985 they relocated to their current location in the city of Mariano Roque Alonso. As of 1991, very few Maká were reported to still live in their homeland in the Chaco (Gerzenstein 1994: 28–29).

Until the 1990s, the Maká language had been known to Western scholars mostly through wordlists. One such wordlist, collected by Wilfrid Barbroke Grubb and referred to as the Towothli doculect in this book, is reproduced in Hunt (1915: 238–256), whereas several other wordlists (Kysela 1931, Beliaeff 1931, 1934, Schmidt 1937) are published in *Revista de la Sociedad Científica del Paraguay* (partly reproduced in the Appendix in Tacconi 2015). In addition, Demersay (1860: 456) documents a list of 16 words representing a language he calls Lengua, which appears to be a divergent dialect of Maká.¹ These sources do not faithfully reflect the phonological oppositions of Maká and are therefore of limited importance for our study, though they provide philological evidence for dating certain sound changes. Maká data in this book come mostly from Gerzenstein (1989, 1994, 1999), with Messineo (2015) and Tacconi (2015) used as secondary sources. Braunstein (1987), Tekombo'e ha Tembikuaa Motenondeha (2020), UNICEF & Tekombo'e ha Tembikuaa Motenondeha (2022), Unu'uneiki Patricia (2011), and Wycliffe's Bible translations have also been consulted, especially with regard to the opposition between plain and glottalized codas and sonorant onsets, underdifferentiated in other sources.

¹Note that the ethnonym “Lengua” has also been historically used to refer to unrelated ethnic groups of the Chacoan region, including the Enlhet (also known as “Lengua Septentrional”, “Northern Lengua”, or “Lengua Norte”), the Enxet (also known as “Enxet Sur”, “Lengua Meridional”, “Southern Lengua”, or “Lengua Sur”), and the Payaguá. The Enlhet and the Enxet are speakers of languages classified as members of the Enlhet–Enenlhet family. The extinct and scarcely attested Payaguá language is best classified as a linguistic isolate, though it may well turn out to be distantly related to Mataguayan (Viegas Barros 2004).

1 Introduction

1.1.2 Nivaçle

Nivaçle ([niva1238]) is spoken by the people of the same name in Paraguay and Argentina. The 2012 Paraguayan census (Dirección General de Estadística, Encuestas y Censos 2014) reports 14 768 ethnic Nivaçle in the Paraguayan territory, including 11 705 in the department of Boquerón and 2 932 in the department of Presidente Hayes. In the Argentine territory, the Nivaçle are known as Chulupí, and their ethnic population is 878, 75.1% of which speak or understand Nivaçle (this corresponds to 659 speakers), according to the 2022 Argentine census (Instituto Nacional de Estadística y Censos 2024). Historically, the presence of the Nivaçle in what is now Argentina was much more notable, and their area used to extend to the Bermejo River in the south; however, due to conflicts with the military in the early twentieth century they retreated north to the Pilcomayo River, and they abandoned their last village on the Bermejo River in 1913 (Hunt 1915: 258). The migration patterns of the Nivaçle in the first half of the twentieth century are particularly complex. Between 1900 and 1945, many Nivaçle migrated seasonally from Paraguay to Argentina, seeking to work on sugar plantations in Salta and Tucumán. From 1930 on, a migration flow in the opposite direction – towards the Mennonite colonies of New-Halbstadt and Filadelfia – became increasingly intense (Stell 1987: 7–10). In earlier literature, the language and the people are sometimes called Ashlushlay.

Gutiérrez (2015b: 7) reports at least three regional varieties of Nivaçle as defined by linguistic criteria:

1. Chishamnee Lhavos (also known as the Arribeño, or Upriver dialect), spoken along the Pilcomayo River, from Fortín Magariños (to the west from Misión Esteros) in the southeast up to the Pedro P. Peña area (Paraguay) and Salta (Argentina) in the northwest (Stell 1987: 21–22);
2. Shichaam Lhavos (also known as the Abajeño, or Downriver dialect), spoken from Fortín Magariños up to the Missions of San José de Esteros and San Leonardo de Escalante/Fischat, both in Paraguay (Stell 1987: 21–22);
3. and Yita' Lhavos (or the Bush dialect), whose zone lays to the north from the Chishamnee Lhavos area, entirely in Paraguay, reaching Mayor Infante Rivarola and approaching Mariscal Estigarribia, with speakers in the Mission of Santa Teresita.

Little is known about the defining characteristics of the dialects spoken by other groups. The Jotoi Lhavos live in the northern part of the Mennonite colonies area, around Campo Loa, to the southeast from Mariscal Estigarribia, Paraguay,

whereas the Tavashai Lhavos live northeast of the Mission of San Leonardo de Escalante/Fischat, between Fortín General Díaz and Tinfunké, along the northernmost extreme of Estero Patiño, also in Paraguay (Stell 1987: 22–23).

Early work on the Nivaçle language includes a short description and vocabulary in Hunt (1915: 257–305) and some less accessible publications, surveyed in Campbell et al. (2020: 15–17). These early sources are not used in our study, because many phonological oppositions of Nivaçle are not sufficiently well represented there. In this book, we rely on Seelwische (2016) as our main source of the Nivaçle lexicon, whereas Gutiérrez (2015b), Fabre (2014), and Campbell et al. (2020) have served as our main data sources on Nivaçle phonology and grammar. Secondary sources include Stell (1987) and the works by Gutiérrez (2015a, 2016a,b,c, 2020, forthcoming) and Gutiérrez & Espinosa (2023).

1.1.3 Chorote

Chorote is a language, or maybe two closely related languages, spoken by the Iyojwa'aja' and Iyo'awujwa' peoples of Argentina and by the Manjui people of Paraguay. The varieties spoken by these peoples are referred to in this book, respectively, as Iyojwa'aja' [iyoj1235], Iyo'awujwa' [iyow1239], and Manjui (no Glottocode assigned). Iyo'awujwa' and Manjui are considerably closer to each other than any of them is to Iyojwa'aja'; they are sometimes collectively referred to as Forest Chorote or, in Gerzenstein's works, as variety #2 (V2), and individually as Argentine V2 and Paraguayan V2. By contrast, Iyojwa'aja' is also known as Riverine Chorote or as the variety #1 (V1). Instituto Nacional de Estadística y Censos (2024) reports 3 238 ethnic Chorote (Iyojwa'aja' and Iyo'awujwa') in the Argentine territory, 75.1% of which speak or understand Chorote (this amounts to 2 431–2 433 speakers). Their main communities in the Chacoan region are Misión La Paz, La Bolsa, La Gracia, La Merced Vieja, and La Merced Nueva, although many have moved to the outskirts of Tartagal in the early twentieth century, more specifically, to the communities of Misión Chorote I, Misión Chorote II, Misión Chorote – Parcela 42, Lapacho I, Misión Kilómetro 4, Misión Kilómetro 6, and Misión El Cruce (the latter community is located in the municipality of General Mosconi rather than Tartagal). The 2012 Paraguayan census (Dirección General de Estadística, Encuestas y Censos 2014) reports 582 ethnic Manjui in the Paraguayan territory, almost all of them (579) in the department of Boquerón. Their main centers are Misión Santa Rosa (Wonta, more than 400 individuals), Abizai (close to Mariscal Estigarribia), and San Eugenio–San Agustín. The exonym Chorote is also sometimes spelt Chorotí in earlier literature.

1 Introduction

It should be noticed that in this book we reserve the term *Manjui* (originally a Nivačle exonym) for the dialect spoken in specific parts of Paraguay, and particularly in Santa Rosa (Wonta). It does not include the variety spoken in the community of San Eugenio, located in the surroundings of Pedro P. Peña near the Pilcomayo River (Paraguay), which is very close to Argentine Iyo'awujwa' spoken in Misión La Paz, Argentina ("almost identical", according to a consultant that has lived in both places). Our usage of the term *Manjui* therefore differs from the everyday usage of the same term in Paraguay, where any Chorote person is referred to as "Manjui", irrespective of the dialect they speak (in Argentina, the term "Chorote" is employed in the same way).

The autonym of the Manjui is *Inkijwas* 'neighbors, those who live together'. Another glottonym found in the literature is *Lumnanas* 'Forest People', spread in the 2000s, but not universally accepted at present (and rejected in Santa Rosa). In turn, *Wikina Wos* 'Northern People' is the name given by the Argentine Chorote to the ones that live in Paraguay.

The Manjui variety (excluding that of San Eugenio) has two subdialects, which according to Hunt (1994) are *Jlimnájnas* 'Forest People', or *Dialect A*, and *Jlawá'a Wos* 'Outsiders', or *Dialect B*. The first one corresponds to the original dwellers of the area of Santa Rosa, where a Mission of New Tribes was founded by the end of the 1960s, and the second one to neighboring groups, especially to the East, that arrived to Santa Rosa after the foundation of the Mission. The variety spoken in Mariscal Estigarribia is also *Jlawá'a Wos*. There are minor differences between them, which are mainly phonetic and, to a lesser extent, lexical. Unfortunately, we cannot reflect this variation in this book in a systematic way. Although we often report internal variation in Manjui, we are often not able to assign a specific dialectal form to either dialect.²

The varieties of Chorote are generally mutually intelligible to a great extent, except that Iyojwa'aja' and Iyo'awujwa' speakers from Argentina do not understand Manjui because of their increased speech rate (the reverse is, however, not true).

Early sources on Chorote include Hunt's (1915) description of Iyojwa'aja' and Lehmann-Nitsche's (1910–1911) wordlists of Manjui (labeled as "A" and "C") and Iyojwa'aja' (labeled as "B"). However, the transcription in these works is quite unreliable, and we rely on them only when a certain lexeme is not attested in

²In speakers born in the 1970s or later, with whom Carol's fieldwork was mainly conducted, both dialects seem to have mixed to some extent. Specific forms were often attributed to one or another dialect depending on the speaker, and different forms were sometimes recognized as representative of the same dialect. Most of Carol's consultants recognized themselves as *Jlawá'a Wos*.

Carol's field materials. The Iyojwa'aja' data in this book come from Carol's original fieldwork (published in Carol 2014a and Carol 2014b, among other works) and Drayson's (2009) dictionary.³ For the Iyo'awujwa' variety, we rely on Gerzenstein's (1983) grammatical description and vocabulary and on Carol's field notes. For Manjui, we also mostly rely on Carol's field data, published as Carol (2018) and Carol (forthcoming), and on Hunt's (1994) vocabulary when a given datum is lacking from our corpus. Scarpa (2010) is a useful source on Iyojwa'aja' and Iyo'awujwa' phytonymy.

1.1.4 Wichí

Wichí is a dialect continuum spoken by a people known as Wichí in Argentina and as 'Weenhayek in Bolivia. Instituto Nacional de Estadística y Censos (2024) reports 69 080 ethnic Wichí in the Argentine territory, 73.4% of which speak or understand Wichí (this amounts to 50 671–50 739 speakers), distributed by province as follows: 45.9% in Salta, 32.3% in Formosa, 9.2% in Chaco, 12.6% elsewhere. Instituto Nacional de Estadística y Censos (2024) also reports 179 ethnic 'Weenhayek, 63.1% of which speak or understand 'Weenhayek (this corresponds to 113 speakers). The 2012 Bolivian census (Instituto Nacional de Estadística 2015) reports that 4 551 individuals aged 4 or older learnt 'Weenhayek as their first language, and that 3 482 individuals aged 6 or older use it as their main language in daily life. In earlier literature, the language and the people are sometimes called Mataco, an ethnonym now considered pejorative.

From a linguistic point of view, Wichí can be subdivided into at least four dialectal zones, as will be argued in §9.2.

1. 'Weenhayek [wich1262], also called Noctén or Noctenes in earlier literature, is the variety spoken in Bolivia along the Pilcomayo River, between the city of Villamontes and the Argentine border;
2. Lower Pilcomayeyño [wich1264] (or Guisnay, from Wichí *W'enhayey* [w'ɛ̃ã-jej]) is a poorly described dialect (or perhaps a dialect cluster) spoken along the Pilcomayo River and around the city of Tartagal in the Argentine provinces of Salta and Formosa;

³The pioneering study of Iyojwa'aja' by Gerzenstein (1978, 1979) was instrumental for Carol's own work, but is not extensively cited in this book given our focus on phonetics and phonology. Subsequent research has revealed some inaccuracies in Gerzenstein's transcriptions, especially regarding glottal and glottalized consonants.

1 Introduction

3. Vejoz [wich1263] is spoken in the Argentine province of Salta along the Bermejo River;
4. Southeastern Wichí (including subdialects such as Lower Bermejeño Wichí and Rivadavia Wichí) is spoken in the Argentine provinces of Salta, Formosa, and Chaco along the Bermejo River as well as between the Bermejo and Pilcomayo Rivers.

The earliest known record of Wichí, representative of the Vejoz dialect, is Esteban Primo de Ayala's 1795 *Diccionario y arte de la lengua mataca*, published in Combès & Montani (2020). Other early sources include Pelleschi (1886, 1897), Massei (1895), Remedi (1896), Lehmann-Nitsche (1910–1911), Hunt (1913a,b, 1937, 1940). These works do not fully reflect the phonological oppositions of Wichí and are therefore not particularly useful for the purposes of our study. We rely on modern sources instead. For the 'Weenhayek variety, our preferred sources are Claesson's (2016) dictionary and Alvarsson & Claesson's (2014) grammatical description. For Vejoz, we have consulted the vocabularies by Viñas Urquiza (1974) and Gutiérrez & Osornio (2015). For the Lower Bermejeño subdialect of Southeastern Wichí, we mostly rely on Nercesian's (2014) grammar, whereas Braunstein's (2009) vocabulary serves as a secondary source; in addition, many flora and avifauna terms have been extracted from Spagarino (2008) and Spagarino et al. (2013 [2011]). Suárez (2014) is a useful source on plant names in the Southeastern variety as spoken in Salta. Terraza (2009b) is a description of Southeastern Wichí as spoken in Rivadavia.

1.1.5 Lexicostatistic classification

We have conducted a lexicostatistic survey with the twofold purpose of obtaining a working model of a phylogenetic tree of Mataguayan and assessing the approximate chronological depth of Proto-Mataguayan. An analogous study with similar results had been carried out by Tovar (1964), but it was based on imperfect data and did not take into account the dialectal diversity of Nivaçle, Chorote, and Wichí (each of these languages is represented by only one lect in that study).

For our lexicostatistic calculations, we have used a list of 110 concepts (an extension of the 100-item version of the Swadesh list), which has been compiled for Maká, two Nivaçle lects, three Chorote lects, and four Wichí lects (Nikulín & Carol 2024) in accordance with the standards adopted in the Global Lexicostatistic Database (Starostin 2011–2019). Known loanwords have been excluded from the counts. We have also calculated approximate divergence dates for each

purported intermediate protolanguage based on the formula proposed by Vasilyev & Saenko (2017).⁴ The resulting matrix is given in Table 1.1 (see the list of abbreviations for the glottonyms).

Table 1.1: Lexical distances between Mataguayan lects (all values in %)

| | Ni ShL | Ni ChL | Mj | I'w | Ijw | 'Wk | Vej | Riv | LB |
|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Mk | 38.10 | 36.80 | 28.57 | 31.00 | 32.65 | 22.64 | 24.51 | 20.00 | 19.81 |
| Ni ShL | | 95.33 | 43.92 | 44.12 | 41.41 | 34.26 | 35.58 | 31.58 | 31.78 |
| Ni ChL | | | 44.86 | 46.08 | 43.43 | 36.11 | 37.50 | 33.77 | 34.26 |
| Mj | | | | 94.12 | 81.82 | 54.63 | 54.37 | 52.63 | 49.53 |
| I'w | | | | | 84.38 | 54.37 | 54.00 | 54.17 | 49.02 |
| Ijw | | | | | | 59.00 | 56.25 | 57.14 | 54.54 |
| 'Wk | | | | | | | 93.27 | 89.47 | 92.59 |
| Vej | | | | | | | | 90.67 | 91.35 |
| Riv | | | | | | | | | 94.80 |

The languages represented by multiple lects in our survey show unequal degrees of internal diversity. Nivaçle and Wichí are quite internally close-knit: there are 95.33% of matches between two Nivaçle dialects (ca. 560 years of divergence), and 89.47%–93.27% of matches between the main dialects of Wichí (ca. 690–900 years); the Rivadavia and Lower Bermejeño subdialects of South-eastern Wichí show an even higher match percentage (94.80%, or ca. 595 years of independent development). By contrast, Chorote is more internally diverse, with as little as 81.82% of matches between Manjui and Iyojwa'aja' (ca. 1270 years). Iyo'awujwa' is obviously closer to Manjui (94.12%, or ca. 640 years) than to Iyojwa'aja', but it shares more cognates with the latter variety than Manjui due to the Iyojwa'aja'–Iyo'awujwa' contact.

On a macro scale, the clearest node comprising multiple languages within Mataguayan is the so-called Chorote–Wichí branch, with the percentage of matches ranging between 49.02% and 54.63% for each pair of lects (we exclude Iyojwa'aja',

⁴The formula in question was chosen because it was designed and tested based on the same type of data sets as the one used here (110-item Swadesh lists for Romance languages compiled in accordance with the standards adopted in the Global Lexicostatistic Database). According to Vasilyev & Saenko's (2017) glottochronological model (the so-called FLOW MODEL), two languages whose most recent common ancestor was spoken t millennia ago are expected to share $e^{-0.61t}(1 + 0.61t)$ cognates on the 110-item Swadesh list.

1 Introduction

which shows up to 59.00% matches with Wichí, because its speakers are known to have intensely contacted with the Wichí since at least 1900). Tovar (1964: 371) gives a similar figure, with 61% of matches on a 100-item wordlist and 49% on a 223-item wordlist. Proto-Chorote–Wichí must have split into Chorote and Wichí some 2,515–2,805 years before present. Note that Wichí could be viewed as the most divergent language within Mataguayan from a morphosyntactic point of view (two salient features are its lack of grammatical gender and its use of demonstrative suffixes rather than proclitics), whereas Chorote is much closer to Nivaçle and Maká in this regard; we interpret this as an innovation specific to Wichí, whereby the latter language underwent considerable structural change in a relatively short period of time.

The position of Nivaçle within the Mataguayan *Stammbaum* is less clear: the language shows comparable percentages of matches with Maká (36.80%–38.10%) and Wichí (31.58%–37.50%), whereas the Nivaçle–Chorote matches total at an even higher rate (41.41%–46.08%) due to language contact between Nivaçle and Chorote (note that Nivaçle cannot form a clade with Chorote to the exclusion of Wichí, since Chorote is most closely related to Wichí). Tovar (1964: 371) finds that Nivaçle shares the same number of cognates with Maká (44% on a 100-item wordlist, 38% on a 223-item wordlist) as with Chorote (44% and 40%, respectively), whereas the pair Nivaçle–Wichí shows fewer matches (38% and 33%, respectively); Tovar’s (1964) opinion is that some Nivaçle–Chorote matches are of a “cultural” nature. There are three possible interpretations, none of which can be discarded at present.

1. Nivaçle could be equidistant from Maká and Chorote–Wichí. In this case Proto-Mataguayan split into three branches (Maká, Nivaçle, and Chorote–Wichí) somewhere around 4,460–4,930 years ago, as indicated by the low shares of cognates between Maká and the Wichí lects (19.81%–24.51%; Tovar 1964 likewise identifies 15% of cognates on his 100-item wordlist and 19% on his 223-item wordlist). The higher shares involving pairs such as Nivaçle–Chorote (especially Chishamnee Lhavos and Manjui/Iyo’awujwa’), Maká–Nivaçle (especially the Shichaam Lhavos dialect), Nivaçle–Wichí, and Maká–Chorote would be explained by undetected borrowings between sister languages.
2. Nivaçle could form a clade with Maká. This is proposed by Fabre (2005), Campbell & Grondona (2007), Viegas Barros (2013a: 296). Under this scenario, Proto-Mataguayan split in a binary way into Maká–Nivaçle and Wichí–Chorote ca. 4,460–4,930 years ago. The higher shares involving

pairs such as Nivaêle–Chorote (especially Chishamnee Lhavos and Manjui/Iyo’awujwa’), Nivaêle–Wichí, and Maká–Chorote would be explained by undetected borrowings between sister languages. Proto-Maká–Nivaêle must have split into Maká and Nivaêle ca. 3,520 years ago, based on the cognate share in the pair Maká–Chishamnee Lhavos (Shichaam Lhavos, which has some additional cognates with Maká, is spoken in an area adjacent to the Maká homeland, and the higher share of matches in the pair Maká–Shichaam Lhavos suggests that there has been some language contact between these lects).

3. Nivaêle could form a clade with Chorote–Wichí to the exclusion of Maká. In this case Proto-Mataguayan would have split into Maká and Nivaêle–Chorote–Wichí ca. 4,460–4,930 years ago. The higher shares involving pairs such as Maká–Nivaêle (especially the Shichaam Lhavos dialect) and Maká–Chorote would be explained by undetected borrowings between sister languages. Proto-Nivaêle–Chorote–Wichí would have split into Nivaêle and Chorote–Wichí ca. 3,470–3,880 years before present (based on 31.58%–37.50% of matches between Nivaêle and Wichí). The higher share of cognates involving Nivaêle (especially the Chishamnee Lhavos dialect) and Chorote (especially Manjui and Iyo’awujwa’) is due to language contact.

In principle, it is conceivable that the low share of cognates between Maká and Wichí – 19.81% to 24.51% – is due to vocabulary loss in one of these languages (or maybe in both) due to lexical borrowing from unknown sources. If these figures are ignored, the disintegration of Proto-Mataguayan must be dated at 3,880–4,110 years before present, based on cognate shares such as 28.57% (Maká–Manjui) or 31.58% (Shichaam Lhavos Nivaêle–Rivadavia Wichí).

1.1.6 External relations

The Mataguayan languages have prominently figured in a number of long-range proposals, most notably as a part of the so-called Mataco–Guaicuruan or Macro-Guaicuruan proposal (cf. Viegas Barros 2013a for the most recent evaluation and references), whereby Mataguayan is considered to be related to the Guaicuruan language family of Argentina, Paraguay, and Brazil (the extinct Guachí and Payaguá languages are also sometimes included into the proposal; Viegas Barros 2004). The hypothesis hinges on significant morphological similarities between Mataguayan and Guaicuruan, but there are also multiple lexical lookalikes involving reconstructed Proto-Mataguayan and Proto-Guaicuruan forms. We find

1 Introduction

the Mataco–Guaicuruan proposal plausible, though a detailed appraisal is beyond the scope of this book. Some lexical lookalikes involving Mataguayan and Guaicuruan are given below, and many more are pointed out in our etymological dictionary (Chapter 10), where we also indicate whether a given lookalike is mentioned in Viegas Barros’s (2013a) study. The Proto-Mataguayan reconstructions are ours, and the Proto-Guaicuruan ones come from Viegas Barros (2013b).

- (1) Proto-Mataguayan **-áφe(?)* • Proto-Guaicuruan **-owe* ‘tooth’
- (2) Proto-Mataguayan **[w]ápil* ‘to return hither’, **[t]píl* ‘to return thither’ • Proto-Guaicuruan **-op’il* ‘to return’
- (3) Proto-Mataguayan **[n]át* ~ **[n]át* ‘to bleed’ • Proto-Guaicuruan **-awot* ‘blood’
- (4) Proto-Mataguayan **-äφ* • Proto-Guaicuruan **-a’wá* ‘wing’
- (5) Proto-Mataguayan **[j]án* • Proto-Guaicuruan **-a(?)n* ‘to put’
- (6) Proto-Mataguayan **[j]ékφa’x* • Proto-Guaicuruan **-ewak* ‘to bite’
- (7) Proto-Mataguayan **[ji]lát* ~ **[ji]lát* [?] ~ **[ji]let* ~ **[ji]lét* • Proto-Guaicuruan **-ʔi(?)lote* ‘to flee’
- (8) Proto-Mataguayan **(-)lé(?)t* ‘firewood’ • Proto-Guaicuruan **-o’lét* ‘fire’
- (9) Proto-Mataguayan **(-)lo(?)* ~ **(-)ló(?)* • Proto-Guaicuruan **á(?)lo* ‘ashes’
- (10) Proto-Mataguayan **máh* ‘go!’ • Proto-Guaicuruan **mo* ‘you go; go!’
- (11) Proto-Mataguayan **-má’k* • Proto-Guaicuruan **á’moqo* ‘powder’
- (12) Proto-Mataguayan **-nji’x* • Proto-Guaicuruan **(?)nik* ‘smell’
- (13) Proto-Mataguayan **’nátu(h)* ‘day, world’ • Proto-Guaicuruan **naló?* ‘natural light, day, sun’
- (14) Proto-Mataguayan **(-)’<n>ájix* • Proto-Guaicuruan **-a’díko* ‘path’
- (15) Proto-Mataguayan **tsâháq* • Proto-Guaicuruan **t’aqaqqa* ‘chajá bird’
- (16) Proto-Mataguayan **-wá’x* ‘burrow, anus’ • Proto-Guaicuruan **-’wV’g* ‘hole’
- (17) Proto-Mataguayan **’wäle’k* • Proto-Guaicuruan **-awalek* ‘to walk’
- (18) Proto-Mataguayan **[ji]’wán* • Proto-Guaicuruan **-wen* ‘to see’
- (19) Proto-Mataguayan **[t]’at’o* • Proto-Guaicuruan **-at’ó* ‘to yawn’
- (20) Proto-Mataguayan **-ʔâx* ‘skin, bark’ • Proto-Guaicuruan **-ʔáko* ‘skin, leather’
- (21) Proto-Mataguayan **-(j)u’k* • Proto-Guaicuruan **-iko* ‘tree (suffix)’

- (22) Proto-Mataguayan **-áwã(?)* • Proto-Guaicuruan **-awo<qó>* ‘flower’

Mataguayan also displays notable similarities with the Zamucoan language family of Paraguay and Bolivia, which is composed of three languages (Old Zamuco, Ayoreo, and Chamacoco). Ciucci (2014) notes multiple morphological and lexical similarities between Zamucoan, Mataguayan, and Guaicuruan, and attributes them to language contact, but the nature of similarities involved (inflectional morphology, basic vocabulary, shared suppletion pattern in the verb ‘to go (away)’) makes us think that Zamucoan could in fact share a distant common ancestor with Mataguayan (and Guaicuruan). An obstacle for pursuing this promising avenue of research is the fact that there have been no systematic attempts at reconstructing Proto-Zamucoan phonology and lexicon so far. Some lexical lookalikes involving Mataguayan and Zamucoan are given below; the Zamucoan forms are from Ciucci (2016: 778–791).

- (23) Proto-Mataguayan **[t]’ä(ˀ)k* • Old Zamuco *[t]ak*; Ayoreo *[t]ak(e)*; Chamacoco *[t]a:k* ‘to eat (intransitive)’
- (24) Proto-Mataguayan **tux* • Old Zamuco/Ayoreo *[t]agu*; Chamacoco *[t]ew* ‘to eat (transitive)’
- (25) Proto-Mataguayan **[ji]mã* • Old Zamuco 1SG *a-imo*; Ayoreo *mo*; Chamacoco *umó?* ‘to sleep’
- (26) Proto-Mataguayan **-éj* ‘name’ • Proto-Guaicuruan **-ej* ‘to name, to call’ • Ayoreo *i*; Chamacoco *i:-te* ‘name’
- (27) Proto-Mataguayan **[j]ik / *-âk / *-äk* • Proto-Guaicuruan **-eko* ~ **-iko* • Ayoreo *dik*; Chamacoco *[d]irk* ‘to go (away)’

It is possible that Mataguayan, Guaicuruan, and Zamucoan are all even more distantly related to a number of more northern language families. Lafone Quedo (1910–1911) observes some similarities between the person indices of Guaicuruan and Chiquitano (a language now known to be classified as Macro-Jê; Adelaar 2008). Viegas Barros (2005) notes some morphological and lexical similarities between Mataguayan, Guaicuruan, and Macro-Jê, a major language family of Brazil and Bolivia, with extinct members in Paraguay and Argentina. Nikulin & Carvalho (2018: 552–555) tentatively suggest, based on limited evidence, that Mataguayan, Guaicuruan, and Zamucoan form a phylum which is distantly related to another phylum composed of Tupian, Macro-Jê, Bororoan, Cariban, and Karirian (cf. Rodrigues 2013 on this latter grouping); together, all these families are hypothesized to constitute the so-called Macro-Chacoan macrofamily,

1 Introduction

to which Nikulin (2020: 79–80) adds Yaathê and is currently inclined to think, based on unpublished evidence, that the Harakmbut–Katukina language family of Western Amazonia (established by Adelaar 2000) also belongs there.

Some lexical lookalikes involving Mataguayan and other language families are given below. The sources are as follows: Nikulin (2020) for Proto-Macro-Jê and for the Karirian varieties (Kipeá and Dzubukuá), Camargos (2013) for Proto-Bororoan, Gildea & Payne (2007) for Proto-Cariban, Silva (forthcoming) and Silva (2022, personal communication) for pre-Yaathê, Anjos (2011) for Katukina, Tripp (1995) for Harakmbut, and the first co-author’s ongoing research for Proto-Tupian (partially published in Nikulin & Carvalho 2022). The transcriptions have been adapted to the International Phonetic Alphabet, except for sounds whose reconstructed value has not been established with certainty (Proto-Macro-Jê *â, Proto-Tupian *k).

- (28) Proto-Mataguayan **-koj* • pre-Yaathê **-kòj* ‘hand’
- (29) Proto-Mataguayan **péłaj* • pre-Yaathê **pVlití-a* ~ **pVlití-* ‘rain’
- (30) Proto-Mataguayan **-xãte* ‘head’ • Proto-Guaicuruan **-(a)t’ek* ‘head, hair’
• pre-Yaathê **-d₂áká* / **d₂áká-ka* ‘head’
- (31) Proto-Mataguayan **-te?* • Old Zamuco/Ayoreo *edo*; Chamacoco PL *il-e* ~ *il-i* (Ciucci 2022) • Proto-Macro-Jê **-ndom*^o • pre-Yaathê **-tò* ‘eye’
- (32) Proto-Mataguayan **?ítãχ* • Proto-Tupian **at^la* / **-j-at^la* • Kipeá *isu* / *-usu*; Dzubukuá *iđu* / *-uđu* ‘fire’ • Katukina *ita*, Harakmbut *?ita?* ‘firewood’
- (33) Proto-Mataguayan **[ji]ká[?]t-APPL* • Proto-Tupian **-kat* • Harakmbut *-kot* ‘to fall’
- (34) Proto-Mataguayan **-φ[?]i(?)* • pre-Yaathê **-pè(j)* • (?) Proto-Tupian **-pi* / **mbi* • Proto-Macro-Jê **-pâr*^o • Kipeá *bi(ri-)*; Dzubukuá *bi* • Proto-Bororoan **bire* ‘foot’
- (35) Proto-Mataguayan **-k’u* ‘horn, club’ • pre-Yaathê **-ki* ‘horn’ • Proto-Tupian **(-)kwp* • Proto-Macro-Jê **(-)ki,m*^o ‘tree, horn, club’
- (36) Proto-Mataguayan **-k’o* ‘bottom, pit’ • Proto-Tupian **-kã?ãc* (preserved only in the Mundurukuan branch) • Proto-Macro-Jê **-kup*^o ‘hole’
- (37) Proto-Mataguayan **-ó?* • Proto-Macro-Jê **c(-)3m*^o • Proto-Bororoan **a* • Proto-Cariban **a-ri* ~ **a-típə* ‘seed’
- (38) Proto-Mataguayan **-á?* • Proto-Guaicuruan **-a* • Ayoreo *a*; Chamacoco *e-ta?* ‘fruit’ • Proto-Tupian **-?a* ‘fruit; head’

1.2 Theoretical tenets

In this section we describe the theoretical tenets of our study, with an emphasis on how a bottom-up approach to the reconstruction of protolanguages can be meaningfully complemented with elements of a top-down approach. We also discuss the relevance of the different levels of phonological analysis to studies in historical linguistics, and make explicit our views on the best practices in the applications of the comparative method and etymological analysis.

The application of the comparative method in this book follows a BOTTOM-UP TOP-CONTROLLED APPROACH, composed of two important principles: the BOTTOM-UP RECONSTRUCTION PRINCIPLE (39) and the EXTERNAL CONTROL PRINCIPLE (40).

- (39) BOTTOM-UP RECONSTRUCTION PRINCIPLE. If a given clade is subdivided into subclades, the reconstruction of each element of its protolanguage must be based on the reconstructions of the intermediate protolanguages (the ancestral languages of the aforementioned subclades).
- (40) EXTERNAL CONTROL PRINCIPLE. If the languages of a given clade do not allow for an unambiguous reconstruction of a given element for its protolanguage (for example, when the evidence is conflicting or incomplete), it is permissible to take into account data from other related languages in order to decide which reconstruction is the most plausible one.

The principles in (39) and (40) are applicable to phonological, lexical, morphological, and syntactic comparanda alike.

In order to comply with the bottom-up reconstruction principle, we make extensive use of Proto-Chorote and Proto-Wichí reconstructions in addition to the data of the contemporary Chorote and Wichí varieties. This is justified by the fact that in each Chorote and Wichí variety, at least some important distinction has been lost as compared to Proto-Chorote and Proto-Wichí, respectively. For example, Iyojwa'aja' has merged the clusters of the shape **hT* (where *T* stands for any stop; metathesized from earlier **Th*) with plain stops, whereas Manjui and Iyo'awujwa' have neutralized the opposition between **a* and **á*. Similarly, Southeastern Wichí has merged Proto-Wichí **u* and **e* and has apparently lost important prosodic distinctions of Proto-Wichí, as well as word-final instances of **h*, whereas 'Weenhayek has suffered a partial merger of **q* and **k^w*, among other likely innovations.

The external control principle allows us to choose between alternative reconstructions of Proto-Chorote and Proto-Wichí forms in a number of situations. For example, as noted above, Manjui and Iyo'awujwa' have neutralized

1 Introduction

the opposition between PCh **a* and **ã*, preserved in Iyojwa'aja' after palatal and palatalized consonants. This entails that whenever an Iyojwa'aja' cognate is unavailable – or if it is available but the vowel in question happens to occur after a non-palatal(ized) consonant – it would be impossible to decide whether PCh **a* and **ã* should be reconstructed in a given protoform based on Manjui and Iyo'awujwa' evidence alone. For instance, the Proto-Chorote etymon of Manjui *?ahájuk* and Iyo'awujwa' *ahájik* 'mistol tree' (without a cognate in Iyojwa'aja') could be alternatively reconstructed as PCh **?ahájuk*, **?ãhájuk*, **?ahájuk*, or **?ãhájuk*. Cognates elsewhere in Mataguayan, such as Nivaçle *?axâjuk* and 'Wee-nhayek *?ahájuk*, clearly show that the correct Proto-Chorote reconstruction is **?ahájuk*.

Throughout this book, we adopt a relatively shallow representation of the data as opposed to sticking to an underlying phonological representation (§1.4.1). This is done for a variety of reasons. First of all, using major allophones rather than phonemes helps circumvent the situation where multiple conflicting analyses have been proposed (for example, aspirated and ejective consonants in Wichí are analyzed as clusters by Claesson 1994 and as phonemes by other authors), or where no deep analysis is available at all (this is the case of Iyo'awujwa' and of the reconstructed protolanguages). Using a shallow representation also spares us the necessity of representing archiphonemes in neutralizing environments. Finally, representing the major allophones makes it easier for the reader to track instances of phonetic change in addition to those of phonological change.

The reconstruction of Proto-Mataguayan in this book is grounded in a solid etymological analysis of the extant comparative corpus. We take a strict approach to the etymologies, whereby only precise (or almost precise) formal and semantic matches between languages are considered to satisfy the criteria for cognation. In some cases, we argue that horizontal transmission (rather than cognation) accounts best for some of the observed similarities; this includes borrowings which have possibly been intermediated by non-Mataguayan languages.

1.3 Previous research

The Mataguayan language family in its current limits has been recognized as a valid genetic unit at least since Métraux (1942), who proposed the label *Matako–Maká* for it. Mason (1950: 202–204), who uses the spelling *Mataco–Maká*, proposes that the family is split in a binary way into two branches (*Mataco* and *Maká*), and that the *Mataco* branch is further subdivided into *Mataco–Mataguayo* (equivalent to the present-day Wichí) and *Chorotí–Ashluslay*, which includes

languages known today as Chorote and Nivaçle. The label Matacoan (or its variants), considered derogatory by the speakers, is sometimes used as a synonym of Mataguayan even today, especially in English-language publications.

Although there have been attempts at a phonological reconstruction of PM (Najlis 1984, Viegas Barros 1993, 2002), none of them can be considered conclusive. The first two predate the publication of two pioneering works on Maká (Gerzenstein 1994, 1999), which appears to be a conservative language in many respects (for example, it preserves a contrast between uvulars and velars, mostly neutralized in other languages). Viegas Barros (2002) makes several improvements, especially regarding guttural (velar, uvular, and glottal) fricatives, but it still predates the publication of important descriptive work on Wichí, Chorote, and Nivaçle, which appeared in the last two decades; therefore, many issues deserve revision in light of the new data. Indeed, recent documentation work has revealed important facts about the phonologies of Nivaçle (Fabre 2014, Gutiérrez 2015b, 2016a,b,c, 2019a,b, forthcoming, Campbell et al. 2020),⁵ Chorote (Carol 2014a,b, 2018), and various dialects of Wichí (Fernández Garay 2006–2007, Spinelli 2007, Avram 2008, Fernández Garay & Censabella 2009, Terraza 2009b, Nercesian 2014). Gutiérrez & Nercesian's (2021) study on the glottal stop and glottalization in the Mataguayan family is the most recent contribution, whose main point is that */ʔ/ should be reconstructed as a phoneme in PM. In our book, all these recent works are taken into account, which at times prompt us to deviate in significant ways from decisions taken in earlier studies in Mataguayan historical linguistics.⁶ This is particularly relevant for Chorote (for which we rely on one of the authors' field data); we show that previous accounts of its historical development have failed to recognize a significant number of phonological processes which are synchronically active in the Chorote varieties.

There are several published studies dedicated to the historical development or comparative studies centered on specific Mataguayan languages. Most of them are dedicated to the dialectal diversity of Wichí, with Najlis (1971), Cayré Baito (2015) focusing on phonology, Nercesian (2019) on morphosyntax, Nercesian & Amarilla (2021) on lexicon, whereas Nercesian (2020) seeks to identify the defining traits of each major dialect of Wichí. In her description of Iyo'awujwa' and Manjui, Gerzenstein (1983) notes a number of differences between these varieties and Iyojwa'aja' and makes an attempt at a reconstruction of Proto-Chorote

⁵Fabre's (2014) grammatical description has also been published as a book (Fabre 2016), an edition we were unable to consult. Our mentions of Fabre's grammar in this book rely on the 2014 version, in particular with regard to the page numbers.

⁶This book was already completed when we learned of Nercesian & Arellano's (2023) and Campbell's (submitted) relevant studies.

1 Introduction

forms. Campbell & Grondona (2007) carry out an internal reconstruction of pre-Nivaçle phonology based on the morphophonological alternations found in that language.

Finally, Viegas Barros (2013a) makes a pioneering attempt at a systematic comparison between reconstructed Proto-Mataguayan and Proto-Guaicuruan forms, which reveals a number of promising sound correspondences. The author concludes that a genetic link between those two families is likely (see §1.1.6 for more details).

1.4 Notation conventions

This section presents the conventions used for the representation of linguistic data in this book.

1.4.1 Transcription

Throughout our study, we resort to (and provide a justification for) using broad phonetic representation for the data of the contemporary languages in order to minimize the impact of one's analytical choices on the validity of our statements. The transcription system used is the International Phonetic Alphabet (IPA), with the following exceptions.⁷ The character *ɑ̃* is employed for the back unrounded vowel /ɑ/ of Nivaçle, 'Weenhayek, Vejoz, Proto-Chorote, Proto-Wichí, and Proto-Mataguayan in order to avoid confusion between the italic letterforms of *a* and *ɑ*. Similarly, *ã* is used for the near-low front unrounded vowel /æ/ of Proto-Mataguayan (and for the allophone [æ̃], occasionally found in Manjui) in order to avoid confusion between the italic letterforms of *æ* and *œ*. The character *β* stands for the labial approximant (IPA /β/) of Nivaçle in order to reduce the use of diacritics; note that there are no voiced fricatives in the Mataguayan languages. We also use the symbol *k̠l̠* for the dorsal–coronal laterally released stop of Nivaçle (IPA /k̠l̠/). The affricates are written without the tie diacritic for legibility purposes. Finally, the function of the acute accent depends on the language: it denotes stress in Chorote and Nivaçle, long vowels in 'Weenhayek and Proto-Wichí, and in Proto-Mataguayan it indicates the abstract category of “accent”, which mostly corresponds to stress in Chorote and Nivaçle and to vowel length in 'Weenhayek and Proto-Wichí. The IPA characters ' and , denote, respectively, primary and secondary accent in languages other than Chorote and Nivaçle.

⁷These exceptions do not apply to narrow transcriptions, for which IPA is used.

When citing data from individual Mataguayan languages, we opt for a relatively shallow level of representation, which in most cases corresponds quite straightforwardly to the orthographies used by their speakers. In some cases, this may result in representing a greater degree of phonetic detail than is actually contrastive in the respective languages (especially in 'Weenhayek and in the Chorote lects). A major advantage of this approach is that it spares us the need to use archiphonemes in forms where some distinctions are neutralized. It also ensures comparability of the data and allows us to eschew the need to choose between conflicting analyses of the same linguistic phenomena. Finally, this decision makes it easier for the reader to track sound changes that have applied in any specific form.

We employ capital letters as wildcard characters for natural classes of Proto-Mataguayan sounds. The complete list is as follows: *A* = low vowel, *C* = consonant, *F* = fricative, *L* = coronal, *M* = sonorant, *P* = stop, *V* = vowel, *W* = labial, *X* = guttural fricative. The term “guttural” in this book is used to refer to velar, uvular, and glottal segments, whereas the term “dorsal” refers to velar and uvular segments only (note that this usage differs from Viegas Barros’s (2002) terminology, who uses the term “dorsal” to refer to /h/ alongside velars and uvulars). We assume the feature [\pm grave] in order to capture the shared phonological behavior of labial and dorsal consonants as opposed to coronals.

A final remark is due on the representation of the glottal stop in what is usually analyzed as onsetless syllables. In most, if not all, Mataguayan lects, a phonetic glottal stop [ʔ] appears to be automatically inserted in any syllable which would otherwise lack an onset, as in Lower Bermejeño /inot/ [ʔi'not] ‘water’. Note, however, that in all Mataguayan languages there are morphemes whose underlying representations demonstrably start with a glottal stop (e.g. PM **-ʔax* ‘skin, bark’ and its reflexes), which are opposed to morphemes whose underlying representations start with a vowel (e.g. PM **-aq* ‘food’ and its reflexes), as is evident from the interaction of these morphemes with the material attached to their left (§2.1.6, §2.2.4). Word-initially, \emptyset (absence of an onset) and /ʔ/ are neutralized in favor of [ʔ] in the Mataguayan languages; we represent such instances of [ʔ] as ʔ. Even if some, most, or all instances thereof turn out to be ultimately epenthetic, representing them as actual segments is useful because they may be subject to sound change in some languages (notably in Wichí, where **ʔ* dissimilated to **h* in certain environments; see §9.1.1.8).

1 Introduction

1.4.2 Special characters

Asterisked forms (such as **-te?*) refer either to reconstructions or to hypothetical forms suggested by one's expectations but contradicted by the actual data. Two asterisks are used for hypothetical reconstructions contradicted by the comparative data (as in "the reflexes in the daughter languages point to the reconstruction **kajáh* rather than to the expected form ***hóhkajah*"). Slashes and brackets are used for phonological and phonetic representations, respectively, including reconstructed forms (for example, **/k/* **[k]*). Forms cited verbatim after premodern sources are given in chevrons (for example, Mk <hipès> 'hand'). The symbol $\overset{?}{\sim}$ is used to separate alternative reconstructed forms where the evidence from the daughter lects is conflicting (some lects point to one reconstructed form, whereas other lects suggest a different reconstruction). By contrast, the symbol \sim is employed when the evidence from the daughter lects is insufficient to choose between two or more possible reconstructions. In addition, \sim is used when two or more forms are synchronically attested in a given lect as variants.

Much of the discussion in this paper is based on analyzing cognate sets. In some cases, a given form is not synchronically segmentable, but only a part of it is cognate with the material of other languages. The part which is deemed noncognate is then given in angle brackets, as in **-lá<hwah>*.

The Mataguayan languages make a clear-cut distinction between ABSOLUTE (unpossessable without additional morphology) and RELATIONAL (obligatorily possessed) nominal stems (Salanova & Nikulin forthcoming). Since relational stems always take a prefixal person index, they are given with a hyphen at the left margin of the stem. That way, the notation PM **-éj* 'name' signifies that the stem in question could not occur without a possessor in Proto-Mataguayan, and it needed to combine with a person index in order to constitute a valid wordform (as in PM **j-éj* 'my name', **ʔ-éj* 'your name', **t-éj* 'her/his name'). Conversely, absolute nominal stems are given without a hyphen at the left margin, as in PCh **két* 'nasal mucus, cold', implying that imaginary forms such as PCh ***ʔi-két* 'my nasal mucus', ***ʔa-két* 'your nasal mucus', ***h²-két* 'her/his nasal mucus' were not possible according to our reconstruction. For a handful of nominal stems, the expression of a possessor is optional; these are called RELATIONALLY LABILE stems. These are given with a hyphen enclosed in parentheses. For examples, Mk *(-)fítik* 'drum' signifies that the root *fítik* in Maká can occur both on its own and with prefixal person indices (as in *ji-fítik* 'my drum'). Such stems are a minority in the Mataguayan languages.

1.4.3 Plurals

In all Mataguayan languages, noun pluralization is attained by means of adding a plural suffix to the stem. There are multiple plural suffixes in each language, and the choice of a particular suffix is lexicalized to a great extent. Moreover, the accretion of a plural suffix often triggers alternations of different types in the stem, such as vowel syncope or metathesis, velar stop spirantization or deletion, and deglottalization, as shown in (41).

- (41) Nivačle
- a. *-k̄lutsef* ‘bow, gun’ → *-k̄lutsxe-s* ‘bows, guns’
 - b. *jitsuʔx* ‘male’ → *jitsx-āj* ‘males’
 - c. *maʔnuʔk* ‘Manjui.SG’ → *manxu-j* ‘Manjui.PL’
 - d. *nijāk* ‘cord, rope’ → *nijxâ-j* ‘cords, ropes’
 - e. *jinkâʔp* ‘year’ → *jinkâp-es* ‘years’

The application of the internal reconstruction method to such alternations in Nivačle by Campbell & Grondona (2007: 5–10) unveiled a number of sound changes, which the authors attribute to the so called “pre-Nivačle” (“pre-Chulupí”) stage. It must be said, however, that analogous alternations are found not only in Nivačle, but also in all other Mataguayan languages. In this book, we assume that most of the sound changes reconstructed by Campbell & Grondona (2007) based on the Nivačle data (i.e., the vowel syncope, the glottal stop deletion, and the velar stop spirantization) had already been complete by the Proto-Mataguayan stage. We thus reconstruct separately the singular and the plural Proto-Mataguayan forms for every noun for which it is possible.

In this book, the plural form is given after the singular form separated by a comma. For example, “Ni *nijāk*, *nijxâ-j*” is to be read as “Nivačle *nijāk* (singular), *nijxâ-j* (plural)”. If the accretion of a plural suffix causes no changes in the stem, only the form of the suffix is given after the stem, enclosed in parentheses. For example, “Wk *-t-úp* (-is)” stands for “Weenhayek *-t-úp* (singular), *-t-úp-is* (plural)”. This notation is also used for the stems ending in *-ʔ*, which is always lost before a plural suffix (§5.2.1): “Ni *-taʔ* (-s)” is to be read as “Nivačle *-taʔ* (singular), *-ta-s* (plural)”.

1.4.4 Allomorphy of the third-person index in verbs

In verbs, it is sometimes useful to specify the allomorph of the third-person prefix they select for. In our notation, it is enclosed in square brackets immediately before the stem. For example, “LB [*ʔi*]lon” is to be read “Lower Bermejeño *-lon*, third

1 Introduction

person *?i-lon*". In Chorote, the third-person prefix *?i-* often causes the palatalization of the initial consonant of the stem; in such cases, we give both the form inflected for the third person (with the prefix enclosed in square brackets) and the bare stem, with no palatalization effect, as in "Mj [*?i*]l'éⁿ / -l'an" (to be read as "Manjui -l'an, third person *?i-l'éⁿ*"). In a handful of irregular verbs, the third-person form (as well as any other irregular forms) is spelled out separately, as in PM **-ãp*, 3 **[j]ip* 'to cry' (to be read as "Proto-Mataguayan **-ãp*, third person **?j-ip*").

In nouns, the choice of the allomorph of the third-person prefix is usually predictable (at least in Proto-Mataguayan and in some daughter languages), so we do not spell it out. It should be noted, however, that in some words – especially those that denote parts of animals or plants – the third-person prefix tends to fossilize to the stem in some languages; alternatively, it may remain analyzable, but the form inflected for the third person is the only one actually in use. Such cases will be commented on explicitly in Chapter 10.

1.4.5 Glottonyms

We have standardized the choice and the spelling of the glottonyms throughout this book in order to warrant consistency. That way, we always refer to the Nivaçle language as *Nivaçle* (and not as *Nivacle*, *Niwaklé*, *Chulupi*, *Ashlushlay*, or *Suhin*), even if the cited source uses an alternative name or spelling. In general, in-prose mentions of specific (proto-)languages and dialects in this book refer to each lect by its full name. At the same time, we employ abbreviated glottonyms when they are not syntactically integrated into the prose (for example, when presenting linguistic data).

1.5 Structure of this book

In Part I, we put forward a detailed proposal regarding the phonological reconstruction of Proto-Mataguayan. It contains four chapters, each dealing with a separate aspect of PM phonology: the reconstruction of consonants (Chapter 2), vowels (Chapter 3), word-level prosody (Chapter 4), and morphophonological alternations (Chapter 5). In each chapter, we provide a declarative account of the reconstructed inventory of segments and phonological processes that were synchronically active in Proto-Mataguayan. We then proceed to examine the sound correspondences on which our reconstruction is based. For non-trivial reconstructive decisions, a justification is provided.

In Part II, we outline the phonological evolution of each Mataguayan language all the way from Proto-Mataguayan to the contemporary lects. It contains four chapters, one on Maká (Chapter 6), one on Nivaêcle (Chapter 7), one on Chorote (Chapter 8), and one on Wichí (Chapter 9). For Nivaêcle, Chorote, and Wichí, we also provide a detailed description of the sound changes which have led to the diversification of Proto-Nivaêcle, Proto-Chorote, and Proto-Wichí.

Part III contains the Mataguayan etymological dictionary (Chapter 10), where we list the cognate sets on which our reconstruction is based. Each entry includes the reconstructed form (and some diagnostic inflected forms, when applicable); its gloss; its reflexes in each daughter variety (including Proto-Chorote and Proto-Wichí) with the respective sources; comments on irregular developments, non-trivial reconstructive decisions, and rejected cognates; comments on similar forms in the Guaicuruan languages; and references to earlier comparative studies when available.

We conclude the book by summarizing the main findings of the preceding chapters and the differences between our proposal and earlier ones (Chapter 11). We also discuss the distribution of the innovations identified in the chapters of Part II, and conclude that Chorote and Wichí likely form a valid clade of the family, whereas Nivaêcle shares some innovations with Chorote–Wichí and others with Maká, making its classification dubious. Finally, we briefly comment on the possible external relations of the Mataguayan family.

2 Consonants

This chapter deals with the reconstruction of the Proto-Mataguayan (PM) consonants. We reconstruct an inventory composed of seventeen plain (non-glottalized) consonants, including six voiceless stops,¹ six voiceless fricatives, three approximants, and two nasals, in addition to a series of glottalized consonants, as shown in Table 2.1. Note that the phonemic status of PM **tʰ* is dubious; this sound arose when an underlying **/t/* coalesced with an underlying heteromorphic **/ʔ/* (§2.2.4).

Table 2.1: PM consonants

| | labial | dental | alveolar | velar | uvular | glottal |
|--------------|--------|----------|----------|--------|--------|---------|
| stops | *p *pʰ | *t *tʰ | *ts *tsʰ | *k *kʰ | *q *qʰ | *ʔ |
| fricatives | *ɸ *ɸʰ | *ɬ (*ɬʰ) | *s *sʰ | *x | *χ | *h |
| approximants | *w *wʰ | *l *lʰ | | *j *jʰ | | |
| nasals | *m *mʰ | *n *nʰ | | | | |

We depart from earlier proposals in reconstructing **/ɸ/* (based on the reflexes in Maká and Nivaçle) instead of **/xʷ/* (a reconstruction based on the Wichí reflex) and show that this segment was related to **/p/* in the same way that **/tʰ s x χ/* were related to **/t ts k q/*. Although in most Mataguayan varieties the glottal stop is automatically inserted in onsetless syllables (at least word-initially), we show that in Proto-Mataguayan vowel-initial stems clearly contrasted with **ʔ*-initial stems, as shown by the alternations in prefixes which attached to such stems.

We follow Viegas Barros (2002) in reconstructing an opposition between velar, uvular, and glottal stops and fricatives. The opposition in question is relatively well preserved in Maká, whereas in other languages it has been subject to partial, conditioned mergers.

The reconstruction of a glottalization feature in consonants is somewhat controversial: at least in some cases it is possible to show, via internal reconstruction,

¹PM **ts* is reconstructed as an affricate, but it fits phonologically into the stop series (see Rubach 1994, Clements 1999 on the possibility of analyzing affricates as strident stops).

2 Consonants

that glottalized onsets in contemporary Mataguayan languages go back to earlier clusters of the type */Cʔ/. No such evidence is available for tautomorphic glottalized onsets. It is unproblematic to derive most glottalized consonants from Proto-Mataguayan */Cʔ/ clusters, given that there is independent evidence for the sound change */Cʔ/ > */C'/ and that clusters of the type */Cʔ/ are otherwise not reconstructed. However, this solution is not available for the consonants *ʔ and *m, which synchronically contrast with the clusters *lʔ and *mʔ.

The basic sound correspondences for plain onsets and codas are discussed in §2.1. §2.2 deals with the status of the glottalized onsets in PM. §2.3 is dedicated to the glottalized codas. In §2.4, we discuss the reconstruction of the consonant clusters of the type *CX (where C stands for a consonant and X for a velar or postvelar fricative). Tautosyllabic consonant clusters of other shapes are dealt with in §2.5. In §2.6, we show that some affixes formed a syllable on their own despite containing a single consonant in PM.

2.1 Plain onsets and codas

In this subsection, we present our reconstruction of the PM consonants in the most basic environment, i.e., when they occur as simplex onsets or codas. Table 2.2 shows the basic reflexes of the PM consonants in individual Mataguayan languages.

2.1.1 PM *p

PM *p is a stable phoneme: it is preserved in all daughter languages as p.

- (1) PM *-áp, 3 *ʔ[j]ip ‘to cry’ > Mk -ap, 3 ip • Ni -ap, 3 [j]ip • PCh *[j]áp • PW *ʔ[j]ip
- (2) PM *-ápil ‘to return thither’ > Mk [w]apil • Ni [β]apek • PCh *[j]ápil • PW *[j]ápilh
- (3) PM *-φapá(?) ‘shoulder’ > PCh *-hwopó? • PW *-x^wápo
- (4) PM *-φapá-ke? ‘shoulder blade’ > Ni -φápá-ke • PCh *-hwopó-ke?
- (5) PM *lo^ʔp ~ *ló^ʔp, *lop-íts ~ *lóp-íts ‘winter’ > Mk lo^ʔp, lop-its • Ni k^llo^ʔp, k^llop-is • PCh *lóp • PW *lop ~ *lóp
- (6) PM *p- ‘that (outside the speaker’s sight and never seen before)’ > Mk p- • Ni pa? • PCh *pá? ~ *páʔ • PW *=pa
- (7) PM *[t]páʔj ‘to be bitter’ > Ni [t’a]páʔj • PCh *páhj-i? • PW *[t]páj

Table 2.2: PM consonants and their reflexes

| Proto-Mataguayan | Maká | Nivačle | Proto-Chorote | Proto-Wichí |
|------------------|------|--------------------|----------------------|--------------------------------------|
| *p | p | p | *p | *p |
| *t | t | t | *t | *t |
| *ts | ts | ts | *s | *ts |
| | | s | | *s |
| *k | k | k, tʃ ^A | k | *k ^j |
| | | | | *q, *k ^{wB} |
| *q | q | k | *q | *q |
| *ʔ | ʔ | ʔ, ∅ ^C | *ʔ | *ʔ, ∅ ^C , *h ^D |
| *ϕ | f | ϕ | *hw | *x ^w |
| | | | *ʌ | |
| *ɬ | ɬ | ɬ | *hl | *ɬ |
| | | | *ɬ | |
| *s | s | s | *s | *s |
| *x | x | x, ʃ ^A | *h, *hw ^E | *h |
| | | | *h, *ʌ ^E | *χ, *x ^{wE} |
| *χ | χ | x | *h, *hw ^F | *x ^{wF} |
| | | | *h | *χ, *x ^{wF} |
| *h | h | h | *h, *∅ ^G | *h |
| | ∅ | ∅ | *h | *h, *∅ ^H |
| *w | w | β | *w | *w |
| *l | l | kl̩ | *l | *l |
| | | k | | *l, *l ^{hl} |
| *j | j | j | *j | *j |
| *m | m | m | *m | *m |
| *n | n | n | *n | *n, *n ^J |

^Abefore or after non-back vowels, except when preceded by a back vowel, possibly with an intervening [+grave] consonant (§7.1.1.3);

^Bafter a back vowel (§9.1.1.2);

^Cword-finally in posttonic syllables (§7.1.1.8, §9.1.1.14);

^Dpreceding a syllable with a glottalized onset (§9.1.1.8);

^Efollowing *u (§8.1.1.4, §9.1.1.3);

^Ffollowing *o or *u (§8.1.1.4, §9.1.1.3);

^Gin onsets of unstressed syllables (§8.1.1.4);

^Hfollowing a syllable with a glottalized sonorant onset (§9.1.1.10);

^Iword-finally (§9.1.1.13);

^Jas an onset of a word-final open syllable (§9.1.1.12)

2 Consonants

- (8) PM *-pás(-eʔt) ‘lip’ > Mk -pas • Ni -pás<eʔt> • PCh *-pás<at> ~ *-pás<ât> • PW *-pás<et>
- (9) PM *-pât ~ *-pát ‘to shuck’ > Ni [t]pât-xan / [n(i)]pât-aʔ • PCh *[ʔi]pát
- (10) PM *pátse(ʔ)χ ‘fast, quick’ > Ni pátsex • PCh *(-)pásah
- (11) PM *pátséχ ‘jabiru’ > Ni pátsex • PCh *pátsáh • PW *pátsáχ
- (12) PM *pätóχ ‘to be deep’ > Ni [ʔa]patox • PCh *-pítohw<ijʔ> • PW *pitóx^w
- (13) PM *[ji]péʔj-aʔ ‘to hear’ > Mk [ji]piʔj-eʔ • Ni [ji]peʔj-a • PCh *[ʔi]péʔj-aʔ
- (14) PM *péla(ʔ)j, *pétaj-its ‘rain’ > Mk pitej (-its) • PCh *péhlajʔ • PW *pétaj^h, *pétaj-is
- (15) PM *pháʔm ‘up’ > Mk -phaʔm • PCh *pʰháʔm • PW *-phâ / *phâm-
- (16) PM *[t]pil ‘to return hither’ > Mk [t(e)]pil • Ni [t(a)]pik ~ [t(a)]pek • PW *[t]píl^h
- (17) PM *pitéχ, *pité-ts ‘long’ > Ni pitex, pite-s • PW *pitáχ, *pité-s
- (18) PM *[t]póʔ-ex ‘to be full’ > Mk [to]poʔ-ox • Ni [to]poʔ-x • PCh *[tʰ]pó-eh • PW *[tʰ]pó-jeχ
- (19) PM *[ji]pónit-ex ‘to fill’ > Mk [j]<o>pon-het-ix • Ni [ji]pont-ef • PCh *[ʔi]pónit-eh • PW *[ʔi]tá-ponit-eχ
- (20) PM *pútäh ‘tapeti rabbit’ > Ni puta • PCh *púteh
- (21) PM *-pxúseʔ (*-j^h) ‘beard’ > Mk -<a>pxusiʔ (-j) • Ni -páse (-j) • PCh *-púseʔ (*-j^h) • PW *-páse (*-j^h)
- (22) PM *-úʔp, *-úp-its ‘nest’ > Mk 3 t-up (-its) • Ni -uʔp, -up-is • PCh *-úp (*-is) • PW *-t-úp (*-is)
- (23) PM *xnáwãʔp ‘spring’ > Mk xinawaʔp • Ni fnãbãp ~ fnãbãp • PCh *nãwop • PW *xnãwop
- (24) PM *xu(ʔ)p ‘grass’ > Mk xup<ʔel> • PCh *húp • PW *hup
- (25) PM *xpáʔk ~ *xpáʔk ‘straw’ > Mk xupa(ʔ)k ~ xupek • Ni xpáʔk • PCh *ʔipáʔk
- (26) PM *(-)X₂₃pél ‘shadow’ > Ni xpek • PCh *-pél • PW *hpél^h / *-hpel^h

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (27) PM *(-)jipkuʔ (*-l) ‘hunger’ > Mk (-)jipkuʔ (-l) • Ni jipkuʔ / -jipku (-k)

- (28) PM **pák*'o 'heel' > PCh **pók*'o? • PW **pák*'o
- (29) PM **pá*'jih 'frog (*Leptodactylus* sp.)' > PCh **pá*'jih • PW **pá*'jih
- (30) PM **[ʔi]pén* ~ **[ʔi]pǎn* 'to cook' > PCh **[ʔi]pén* • PW **[ʔi]pén*
- (31) PM **kpéna*(?)_{X₁₂} ~ **kpána*(?)_{X₁₂}, **kpén*X₁₃a-ts ~ **kpǎn*X₁₃a-ts 'orphan' > PCh **kpénah*, **kpéhna-s* • PW **k^jpénaχ*, **k^jpénha-s*
- (32) PM **púle*(?) (*-ts) 'sky, cloud' > PCh **púle*?(*-s) • PW **púle* (*-s ~ *-*łajis*)
- (33) PM **púm* 'drum' > PCh **púm* • PW **púm*
- (34) PM **qapa*(?)*p* ~ *-*ä*- 'dwarf' > Mk *qep<ep>e*(?)*p* • Ni *kapap* 'dwarf dog'
- (35) PM **spú*(?)*p* 'dove' > PCh **s^apúp* • PW **spúp*
- (36) PM **wapen* ~ **wǎpen* 'to be ashamed' > Mk *wepin* • Ni *βapen*

2.1.2 PM *t

PM **t* is a stable phoneme: it is preserved in all daughter languages as *t*. An irregular glottalized reflex is found in Wichí in (79).

- (37) PM **n-át* 'to fall on its own' > Ni *n-at* • PW **<n>át*
- (38) PM **-áme*(?)*t* / *-ámte*- 'word' > PCh **-ámt-* • PW **-ámet*, *-ámte-s*
- (39) PM **[n]ât* ~ **[n]át* 'to bleed' > Mk *[n]at-xu?* • Ni *[n]ât* • PCh **<n>ât-* • PW **<n>ât-* ~ **<n>át-*
- (40) PM **-á*'*t*, **-át-its* 'drink' > Ni *-á*'*t*, *-át-is* • PCh **-át* (*-es) • PW **-ł-át*
- (41) PM **-áte*(?) (*-*j^h*) 'jar' > PCh **-áte*?(*-*j^h*) • PW **<xj>áte* (*-*j^h*)
- (42) PM **[j]áte*(?)*χ* 'to be fat' > Ni *[j]átex* • PCh **[j]átah* • PW **[j]átax*
- (43) PM **φa*'*t* ~ **φá*'*t* 'fire' > Mk *fe*'*t* • PCh **hwát*
- (44) PM **(-)*φétá'*ts* 'root' > Mk *fitets* • Ni *-φeta*'*s* • PCh **-hwétus* • PW **(-)*x^wétes
- (45) PM **φi*'*ját* 'cold weather, south wind' > Ni *φi*'*jat* • PCh **hwi*'*jét* • PW **x^wi*'*jét*
- (46) PM **-φqató* (*-*l*) 'elbow' > Ni *-(ʔV)φkato* (-*k*) • PCh **-qató*? (*-*l*) • PW **-qáto* (*-*l^h*)
- (47) PM **-φu*'*t* ~ **-φú*'*t*, **-φtú*-*ts* 'flatulence' > Mk *-ftu*-*ts* • Ni *-φu*'*t*, *-φtu*-*ts* • PCh **-hwút*
- (48) PM **jiná*'*t*, **jinát*-*its* 'water' > Ni *jiná*'*t*, *jinát-is* • PCh **ʔi*'*nát* (*-es) • PW **ʔinát* (*-es)

2 Consonants

- (49) PM *-kat ‘collective of plants’ > Mk -ket • Ni -tʃat / -kat • PCh *-kat • PW *-kʲat (*-at after *kʷ, *q)
- (50) PM *[ji]káʔt-APPL ‘to fall’ > Ni [ji]káʔt-APPL • PW *[ni]kʲát-APPL
- (51) PM *khát ‘cactus’ > Mk khat-uʔk • Ni kxat • PCh *kâhát • PW *kʲáhát
- (52) PM *-kitáʔ (*-wot) ‘elder sister’ > Ni -tʃitaʔ (-ʃot) • PCh *-kitáʔ (*-wot) • PW *-kʲíta
- (53) PM *-kút-ex ‘to meet’ > Mk [w(e)]kut-ix-uʔt • Ni [βa]kut-ef • PCh *[ʔi]kút-eh • PW *-kʲút-ex
- (54) PM *kʷú(t)sta(ʔ)χ, *kʷú(t)sta-ts ‘barn owl’ > Ni (?) kʷustax, kʷusta-s ‘mockingbird’ • PCh *kʷústah, *kʷusta-s • PW *kʲústax
- (55) PM *kʷutX₂₃áʔn, *kʷutX₂₃án-its ‘thorn’ > Ni kʷutxaʔn, kʷutxan-is • PCh *kʷutáʔn, *kʷután-is • PW *kʲútháʔn, *kʲúthán-is
- (56) PM *[ji]lât ~ *[ji]lâtʔ ~ *[ji]let ~ *[ji]lét ‘to flee’ > Mk <i>latʔ ~ <i>lit • Ni [ji]klât • PCh *-<ʔj>i>lt<an> ~ [ʔi]<ʔj>i>lt<an> • PW *[ʔi]lét<han>
- (57) PM *lkéte ‘squash’ > Mk lekiti • PCh *kéteʔ
- (58) PM *lóta-(ju)ʔk ‘tree for making bows’ > Ni klóta<tʃ> • PCh *lóta-juk • PW *lôte<q>
- (59) PM *(-)léʔ(t) ‘firewood’ > Mk ʃit<uʔ> • PCh *-<ʔa>hlét ~ *-<ʔá>hlét • PW *-ʃét
- (60) PM *-ʔmat ‘negative quality, physical defect’ > Mk -ʔmet • Ni -ʔmat • PCh *-ʔmat
- (61) PM *mät ‘hither, nearby’ > Mk met ‘nearby’ • PCh *mét ‘hither’
- (62) PM *ŋ-xáteʔ (*-l)ʔ ~ *ŋ-xátiʔ ‘dream, sleepiness’ > Mk -nixatiʔ (-l) • Ni nxáte (-k) • PCh *ʔihnátiʔ • PW *naháti
- (63) PM *-nX₂₃atáʔ ‘nasal mucus’ > Ni -nxatáʔ • PCh *-hnát<ijah-PL>
- (64) PM *-nX₂₃aq(ʔ)át ‘to snore’ > Ni [ta]nxakát • PCh *[ʔi]hnáqʔát
- (65) PM *nʲánxteʔ ‘tapeti rabbit, cavy’ > Mk nijaxtiʔ • Ni nánxate • PCh *nʲáhâteʔ • PW *nʲáte
- (66) PM *-pás-eʔt ‘lip’ > Ni -pás<eʔt> • PCh *-pás<at> ~ *-pás<át> • PW *-pás<et>
- (67) PM *-pát ~ *-pát ‘to shuck’ > Ni [t]pát-xan / [n(i)]pát-aʔ • PCh *[ʔi]pát
- (68) PM *pätóχ ‘to be deep’ > Ni [ʔa]patox • PCh *-pítóhw<ijʔ> • PW *pitóxʷ
- (69) PM *pitéχ, *pité-ts ‘long’ > Ni pitex, pite-s • PW *pitéχ, *pité-s

- (70) PM *[j]pónit-ex ‘to fill’ > Mk [j]<o>pon-het-ix • Ni [ji]pont-ef • PCh *[ʔi]pónit-eh • PW *[ʔi]tá-ponit-εχ
- (71) PM *pútāh ‘tapeti rabbit’ > Ni *puta* • PCh *púteh
- (72) PM *-p’o’[?]t ‘lid’ > Mk -p’ot<oʔ> • Ni -p’o’[?]t • PCh *-p’ót • PW *-p’ot
- (73) PM *qati’[?]ts, *qatits-él ‘star’ > Ni *kati’[?]s* • PCh *qatés, *qates-él • PW *qates, *qatés-el^h
- (74) PM *-sā’[?]t ‘vein’ > Mk -<ʔa>sa’[?]t • Ni -sā’[?]t • PCh *-sāt- • PW *-sāt
- (75) PM *(-)skā’[?]t ‘mesh’ > Ni -stfa’[?]t • PW *sik’et
- (76) PM *sténi(?) ‘white quebracho’ > Mk *sitin-u’k* • PCh *ʔ[?]sténi? • PW *ʔisté’nih
- (77) PM *stwú’[?]n, *stwún-its ‘king vulture’ > Ni *staβu’[?]n*, *staβun-is* • PCh *ʔ[?]stúu’[?]n, *ʔ[?]stúun-is • PW *ʔistíwin
- (78) PM *tānúk (*-its) ‘feline’ > Mk *tenuk* (-its) • Ni *tanuk* (-is) • PCh *tinúk (*-is)
- (79) PM *táxχan ‘to thunder’ > Mk *texen* • Ni *tafxen* • PW *t’áχan
- (80) PM *-taχ, *-ta-ts ‘pseudo-’ > Mk -taχ, -te-ts • Ni -tax, -ta-s • PCh *-tah, *-ta-s • PW *-taχ, *-ta-s
- (81) PM *[ni]-táφä(?)l-APPL ‘to know, to be acquainted’ > Ni [ni]táφakl-APPL • PCh *[ʔi]táhwel-APPL • PW *-táx^wel-APPL / *-táx^wnh-APPL
- (82) PM *tá’[?]ʔ ‘to sprout’ > Mk *ta’[?]ʔ* • Ni *tá’[?]ʔ* • PCh *tá’[?]ʔ • PW *tá’[?]ʔ
- (83) PM *-támte? (*-ts) ‘daughter-in-law’ > Ni -támte<ʔe> (-s) • PCh *-támte? (*-s)
- (84) PM *-tátse? (*-j^h) ‘eyelash’ > Mk -tetsi?(-j) • Ni -tátse(-j) • PCh *-táse?(*-j^h)
- (85) PM *-táwä’[?]x, *-táwxä-ts ‘(abdominal) cavity’ > Mk -tawe’[?]x, -tawxe-ts • Ni -tāβa’[?]f, -tāβxa-s • PCh *-tóweh • PW *-tóweχ
- (86) PM *-tä(?)ts, *-täts-él ‘trunk, base’ > PCh *-tés (*-el) • PW *-tes, *-téts-el^h
- (87) PM *-täts-u’[?]k, *-täts-ku-j^h ‘trunk’ > Ni -tats-uk, -tas-ku-j • PCh *(-)tés-uk, *-tés-ku-j^h
- (88) PM *-teʔ, *-té-j^h ‘eye’ > Mk -t<oʔ> (-j) • PCh *-ta-té? (*-j^h) • PW *-t(a)-te? (*-j^h)
- (89) PM *téwo(?)k[?] ~ *téwä(?)k ‘river’ > Ni *toβok* ~ *toβák* • PCh *téwok ~ *téwák • PW *téwok^w
- (90) PM *-ti’[?]ʔ ‘to spin, to sew’ > Mk [ji]tiʔ • Ni *ti’[?]ʔ* • PCh *[j]<á>tiʔ

2 Consonants

- (91) PM *títe(°)k, *títthe-j^h ‘plate’ > Ni (-)titetf, (-)titxe-j • PCh *títek, *títthe-j^h
- (92) PM *-t(á)koʔ(*-l) ‘face’ > Mk -tko<jek> • Ni -takoʔ(-k) • PCh *-tókoʔ(*-l) • PW *-ták^o(*-l^h)
- (93) PM *-t(á)ko-seʔ(*-j^h) ‘eyebrow’ > Mk -tko-siʔ(*-j) • PCh *-tóko-seʔ(*-j^h) • PW *-ták^o-se(*-j^h)
- (94) PM *tlúʔk ‘blind’ > Ni takluʔk • PCh *t^olúk • PW *tilúk^w
- (95) PM *tós(*-its) ‘snake’ > Ni tos(-is) • PCh *tós(*-is)
- (96) PM *tóχ-APPL, *tó-ts-APPL ‘far’ > Mk -toχ-ij, to-ts-ij • Ni tox-APPL • PCh *tóh(w)-APPL, *tó-ts-APPL • PW *tóx^w-ej^h
- (97) PM *túku(°)(t)s ‘ant’ > Ni tukus • PCh *túkus
- (98) PM *túsu(°)(t)s ‘lesser yellowlegs’ > Ni tusus • PCh *túsus • PW *túsus
- (99) PM *-ʔtxoʔk ~ *-ʔtxóʔk, *-ʔtxóko-wot ‘uncle’ > Mk -txoʔk • Ni -ʔtxoʔk, -ʔtxoko-βot • PCh *-<i>tók, *-<i>tóko-wot • PW *-<wi>thok^w
- (100) PM *-tséwte(ʔ)(*-j^h) ‘tooth’ > Ni -tseβte(-j) • PW *-tsóte(*-j^h)
- (101) PM *tsóφα-taχ ‘fruit of a shrub (*Lycium americanum*)’ > Mk tsofe-taχ • Ni tsoφ-tax
- (102) PM *tsóφα-ta-(ju)ʔk ‘shrub (*Lycium americanum*)’ > Mk tsofe-te-k • Ni tsoφ-ta-juk • PW *tsóx^wa-t-uk^w
- (103) PM *wátá(°)χ ‘palo flojo fruit’ > Ni βátâx • PW *wátox^w
- (104) PM *-ʔwät ‘place’ > Mk -ʔwet • Ni -ʔbat • PCh *-ʔwét • PW *-ʔwet
- (105) PM *-xáteʔk, *-xátthe-j^h ‘head’ > Ni -fateʔtf, -fatxe-s • PCh *-hétek, *-héhte-j^h • PW *-t-éteq, *-t-éthe-j^h
- (106) PM *xunxátaχ ‘tusca fruit’ > Mk xunxetaχ • Ni xunfataχ • PCh *ʔihnátah • PW *xnhátaχ
- (107) PM *xunxáta-(ju)ʔk ‘tusca tree’ > Mk xunxete-ʔk • Ni xunfata-juk • PCh *ʔihnáta-k • PW *xnháte-q
- (108) PM *xunxáta-kat ‘tusca grove’ > Mk xunxete-ket • Ni xunfata-tfat • PCh *ʔihnáta-kat
- (109) PM *...X₂₃aʔt(*-its) ‘earth’ > Ni <kots>xaʔt, <kots>xat-is • PCh *<ʔa>h<n>át ~ *<ʔá>h<n>át(*-es) • PW *<hon>hat, *<hon>hát-es
- (110) PM *X₁₃óʔt ‘sandy place’ > Ni xoʔt • PCh *hót • PW *hót
- (111) PM *[ji]X₁₃út ‘to push’ > Ni [ji]xut • PCh *[ʔi]hút • PW *[ji]hút

- (112) PM *ʔatuʔχ ~ *ʔatúʔχ ‘snake sp.’ > Ni ʔatuʔx • PCh *ʔatúh
- (113) PM *-ʔáX₂₃te(?) (*-j^h) ‘female breast’ > Ni -ʔaxte (-j) • PCh *-ʔáhate? (*-j^h)
• PW *-t-’áte (*-j^h)
- (114) PM *ʔáʔjtex, *ʔáʔjte-ts ‘to hurt’ > Mk aʔtaχ, aʔti-ts • Ni ʔáʔjtex ~ ʔáʔβtex •
PCh *ʔáʔjʔtah-APPL, *-ʔáʔjʔte-s-APPL • PW *ʔáʔtaχ, *ʔáʔte-s
- (115) PM *ʔáʔlál-taχ, *ʔáʔlál-ta-s ‘Argentine boa’ > Ni ʔáʔklá-tax, ʔáʔklá-ta-s • PCh
*ʔáʔlál<ta> ~ *ʔáʔlál<ta>, *ʔáʔlál<ta>-s ~ *ʔáʔlál<ta>-s • PW (?) *lál<ta>
- (116) PM *ʔánitih ‘wasp sp.’ > Ni ʔániti • PCh *ʔánitih
- (117) PM *ʔátits ~ *-í- ~ *-e- ~ *-é- ‘wild pepper’ > Mk atits • PCh *ʔátés
- (118) PM *ʔitá(?)χ, *ʔitá-ts ‘fire’ > Ni ʔitáx, ʔitá-s • PCh *ʔitáh, *ʔitá-s • PW *ʔitáχ,
*ʔitá-s
- (119) PM *-ʔóʔt ~ *-ʔóʔt ‘chest’ > Ni -ʔóʔt • PCh *-ʔót

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaê, Chorote and Wichí), whose PM age is thus questionable. The correspondence between a plain stop in Wichí and a glottalized stop in Chorote in (127) is irregular.

- (120) PM *-ata(?)x ~ *-ä- ‘food’ > Mk -ete(?)x • Ni -ataf
- (121) PM *[j]áfti(?)t ‘to spin’ > Mk [j]afti(?)t • Ni [j]áftit
- (122) PM *ʔiʔixátaχ, *ʔiʔixáta-ts ‘ocelot’ > Mk iʔixataχ, iʔixate-ts • Ni jixátaχ,
jixáta-s
- (123) PM *[ji]ká(?)t ‘to be red’ > PCh *[ʔi]kát • PW *[ʔi]kʲát
- (124) PM *kójXa(?)t ‘to be heavy’ > PCh *kóhjat-APPL • PW *k’ójhat
- (125) PM *ktáʔnih ‘Chaco tortoise’ > PCh *kitáʔnih • PW *kʲtáʔnih
- (126) PM *ktéta(?) ~ *ktáta(?) ‘white algarrobo fruit (*Prosopis elata*)’ > PCh
*kitéta? • PW *kʲtéta
- (127) PM *-kʲvnt(?)... ‘kidney’ > PCh *-kántʲijaa? • PW *-kʲóntowaj
- (128) PM *-kʲóX₂₃te(?) (*-j^h) ‘ear’ > PCh *-kʲóote? (*-j^h) • PW *-kʲʲóte (*-j^h)
- (129) PM *kʲunhate-nha? ‘pacu fish’ > Mk <i>kʲunheti-nhe? (-j) • Ni
kʲunxate<nxa> (-j)
- (130) PM *[ji]lá(?)t ‘to feel’ > PCh *[ʔi]lát-ej^h • PW *[ʔi]lát
- (131) PM *-ʔiʔwte? ‘heart’ > Mk -ʔiti? • Ni -ʔiʔβte

2 Consonants

- (132) PM **[t]qási(?)t / -qási(?)t* ‘to stand’ > PCh **[t°]qásit* • PW **[t]qásit*;
IMP **qásit*
- (133) PM **-qá?tu(?)* ‘yellow’ > PCh **-qá?tu?* • PW **qá?tu*
- (134) PM **siló?táφV[?]* **siwó?táφe* ‘Caatinga puffbird’ > PCh **siló?táh^wV?* • PW
**siwótáx^we*
- (135) PM **stá-°q* ‘toothpick cactus (*Stetsonia coryne*)’ > PCh **?°stá-k* • PW
**?istá-q*
- (136) PM **stáφe(?)* ‘Chaco chachalaca’ > PCh **?°stáhwe?* • PW **?istáx^we*
- (137) PM **(-)tak’o(h) ~ *(-)täk’o(h)* ‘kind of utensil’ > Mk *tok’o* • Ni *-tak’o-tax*
- (138) PM **tana(h) ~ *täna(h)* ‘standing, vertical’ > Mk *te:ne, tene-m* • Ni *tana*
- (139) PM **-témä(?)k ~ *-tämä(?)k, *-témh-aj^h ~ *-tämh-aj^h* ‘bile’ > PCh **-téme^k,*
**-témh-aj^h* • PW **-témeq, *-témh-aj^h*
- (140) PM **tkéna(?)X₁₂ ~ *tkána(?)X₁₂, *tkénX₁₃a-ts ~ *tkänX₁₃a-ts* ‘precipice; hill,
mountain’ > PCh **t°kénah, *t°kéhna-s* • PW **tk’énaχ, *tk’énha-s*
- (141) PM **(-)tútse(?)χ* ‘smoke’ > PCh **(-)túsah* • PW **(-)tútsaχ*
- (142) PM **tuχ-APPL* ‘to burn (intr.)’ > Mk *tuχ-xem, tuχ-e?* • Ni *tux-a°m, tux-ej*
- (143) PM **[ji]-tXá(?)t* ‘to throw, to put’ > PCh **[?i]tát-APPL* • PW **[?i]thát*
- (144) PM **wósak°V(?)t* ‘red-crested cardinal’ > PCh **wós°k°at* • PW **wósak°’it*
*~[?] *wósak°’ut*
- (145) PM **(?)wut* ‘a bushy leguminous plant’ > Mk *wut* • Ni *βut*
- (146) PM **?áte(?)k ~ *?átä(?)k* ‘cebil, vinal’ > PCh **?átek* • PW **?áteq*
- (147) PM **?áφte°l* ‘orphan’ > Mk *afti°l* • Ni *?áφte°k*
- (148) PM **?omhatäk ~ *?omhätäk* ‘queen palm fruit’ > Mk *omhetek* • Ni
?omxatatf
- (149) PM **-?ó°thale(?) ~ *-?ó°thâle(?)* ‘heart’ > PCh **-?óhtale? ~ *-?óhtâle?* • PW
**-t-°ótle*

In a number of *t*-initial verbs in Maká, which belong to the 7th conjugation in Gerzenstein’s (1994) classification, the initial consonant changes to *t̥* after the prefixes *xite-* 1INCL.IND, *xinte-/qinte-* 1INCL.NIND, *k’e-* 1>2, *tse-* 3>1, *ne-* 3>2, *∅-* 2IMP (Gerzenstein 1994: 96, 100, 145). Their cognates in Nivaçle present a similar alternation: their citation form starts with a *t̥*, which changes to *t* after the reflexive prefix *βat-* (Fabre 2014: 191, fn. 163). All such verbs select for a zero

third-person prefix in Nivaêle, which is also true of their cognates in Maká and Wichí (but not in Chorote, where they take the allomorph *ʔi-*). The origins of the alternation between *t-* and *ʔ-* are as of yet unclear.

- (150) PM **tiʔ* ~ **tiʔ* ‘to spend’ > Ni *tiʔ* • PCh **[ʔi]tíM*
- (151) PM **tiʔ* ‘to suckle’ > Mk *tuʔf/ -ʔuʔf* • Ni *tiʔ* • PCh **[ʔi]tíM* • PW **tip*
- (152) PM **tiʔj* ‘to weave’ > Mk *tij/ -ʔij* • Ni *tiʔj*
- (153) PM **tijáʔχ* ‘to shoot, to throw’ > Mk *tijaʔχ/ -ʔijaʔχ* • Ni *tijáʔx* • PCh **[ʔi]tijáh* • PW **tijáχ*
- (154) PM **tiʔáʔx* ‘to carry on one’s shoulders’ > Mk *tiʔáʔx/ -ʔiʔáʔx* • Ni *tiʔáʔx* • PCh **[ʔi]tíhláh* • PW **tiʔáχ*
- (155) PM **tim* ‘to swallow’ > Mk *tim-xuʔ/ -ʔim-xuʔ* • Ni *tim* • PCh **[ʔi]tím* • PW **tim*
- (156) PM **tis* ‘to invite, to pay’ > Mk *tis-ix/ -ʔis-ix* • Ni *tis* • PCh **[ʔi]tís* • PW **tis*
- (157) PM **tiʔx* ‘to dig’ > Mk *ti(ʔ)x-APPL/ -ʔi(ʔ)x-APPL* • Ni *tiʔf* • PCh **[ʔi]tíh-ijʔ* • PW **tiχ*
- (158) PM **tux* ‘to eat (tr.)’ > Mk *tux/ -ʔux* • Ni *tux* • PCh **[ʔi]túM* • PW **tux^w*

2.1.3 PM **ts*

PM **ts* is preserved as a distinct segment in all Mataguyan languages except Chorote, which merges it with PM **s* as PCh **s* in all positions (§8.1.1.1, but see §8.2.2.11 for possible remnants of **ts* in the Iyo’awujwa’ variety of Chorote).

- (159) PM **ʔátsu(ʔ)χ*, **ʔátshu-ts* ‘centipede’ > Ni *ʔatsux*, *ʔatsxu-s* • PCh **(h)wásuh*, **(h)wásu-s* • PW **x^wátsux^w*
- (160) PM **ʔtsána(ʔ)χ* ‘suncho (*Baccharis* sp.)’ > Ni *ʔtsánax* • PCh **sánah* • PW **x^witsánax*
- (161) PM **ʔts-uʔk* ‘palm (*Copernicia alba*)’ > Mk *ʔits-uk* • Ni *ʔts-uʔk* • PCh **hwis<úk>* • PW **x^wits<uk^w>*
- (162) PM **(-)kʔútsaʔχ*, **(-)kʔútsha-ts* ‘old’ > Mk *kʔútsaʔχ*, *kʔútshe-ts* • Ni *kʔútsaʔx*, *kʔútsxa-s* • PCh **-kʔúsh*, **-kʔúsa-s* • PW **-kʔʔútsaχ*
- (163) PM **látsen-uʔk* ‘chañar plant’ > Mk *<xu>letsin-uʔk* • PCh **léseni-k* • PW **létsen-uk^w*

2 Consonants

- (164) PM *(-)lútseʔx, *(-)lútsxe-ts ‘bow’ > Ni *k̄lútsef / -k̄lútseʔf*, (-)k̄lútsfe-s • PCh *(-)lúseh (*-es) • PW *(-)lútseχ, *(-)lútse-s
- (165) PM *pátse(ʔ)χ ‘fast, quick’ > Ni *pátsex* • PCh *(-)pásah
- (166) PM *pátséχ ‘jabiru’ > Ni *pátsex* • PCh *pátsáh • PW *pátsáχ
- (167) PM *-tátseʔ(*-jʰ) ‘eyelash’ > Mk *-tetsiʔ(-j)* • Ni *-tátse(-j)* • PCh *-táseʔ(*-jʰ)
- (168) PM *ts- ‘that (within the speaker’s sight)’ > Mk *ts-* • PCh *séʔ • PW *=tsoh ‘that (moving away)’
- (169) PM *tsáháq(*-its) ‘chajá bird’ > Mk *tsahaq(-its)* • PCh *sáhák, *sáháq-es
 ~ *sáháq-is • PW *tsáháq
- (170) PM *tsänúʔk ‘duraznillo trees’ > Ni *tsanuʔk* • PCh *sinúk • PW *tsinúk^w
- (171) PM *tséχ-APPL ‘full (river)’ > Ni *tsex-APPL* • PCh *-sáh • PW *tsáχ-APPL
- (172) PM *-tséwteʔ(*-jʰ) ‘tooth’ > Ni *-tseʔte(-j)* • PW *-tsóte(*-jʰ)
- (173) PM *tsóʔa(ʔ) ‘fruit of a shrub (*Maytenus vitis-idaea*)’ > PCh *sóhwaʔ • PW *tsóx^wa(ʔ)
- (174) PM *tsóʔa-taχ ‘fruit of a shrub (*Lycium americanum*)’ > Mk *tsofe-taχ* • Ni *tsoʔ-tax*
- (175) PM *tsóʔa-ta-(ju)ʔk ‘shrub (*Lycium americanum*)’ > Mk *tsofe-te-k* • Ni *tsoʔ-ta-juk* • PW *tsóx^wa-t-uk^w
- (176) PM *ʔwátshan ~ *ʔwátšan ‘to be healthy, alive’ > Ni *βatsxan* • PCh *ʔwásaʔn • PW *ʔwátshan
- (177) PM *ʔáwu(C)tseχ ‘peccary’ > Ni *ʔabuktsex ~ ʔaboktsex* • PCh *ʔáwusah • PW *ʔáwutsaχ
- (178) PM *(ʔa)X₁₃útsa(ʔ)χ, *(ʔa)X₁₃útsha-ts ‘crested caracara’ > Ni *xutsax, xutsxa-s* • PCh *(ʔa)húsah, *(ʔa)húsa-s • PW *ʔahútsaχ, *ʔahútsha-s
- (179) PM *ʔál(V)tse(ʔ)χ, *ʔál(V)tse-ts ‘cháguar (*Deinacanthon urbanianum*)’ > Ni *ʔáktsex, ʔáktse-s* • PCh *ʔál^osah, *ʔál^ose-s • PW *ʔáletsaχ

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêle, Chorote and Wichí), whose PM age is thus questionable.

- (180) PM *[j]átsi(ʔ)j ‘to spill’ > Mk *[j]atsij-xuʔ* • Ni *[j]átsij*
- (181) PM *-kéjáts (m.), *-ké(j)tsá-ts (pl.) ‘grandchild’ > PCh *-kéjás, *-kétsás • PW *-k'éjás, *-k'étsás

- (182) PM *k(ʼ)utsá(ʼ)X₁₂ ~ *k(ʼ)utsé(ʼ)χ ‘cháguar (*Bromelia hieronymi*)’ > PCh *kʼusáh • PW *kʼutsáχ
- (183) PM *lâttsiki-juʼk ‘willow’ > Mk *lattsiki-juʼk* • Ni *klâttsiki-juk*
- (184) PM *níltsa(ʼ)X₁₂, *níltsX₁₃a-ts ‘white-lipped peccary’ > PCh *<ʔih>nílsah, *<ʔih>nílsa-s • PW *nítsaχ, *nítsa-s
- (185) PM *qatsíwo(?) ‘limpkin’ > PCh *qasíwo<ʔoh> • PW *qatsíwo
- (186) PM *(-)tútse(ʼ)χ ‘smoke’ > PCh *(-)túsah • PW *(-)tútsaχ
- (187) PM *tsaqaq ~ *-ä- ‘plant sp.’ > Mk *tseqaq* • Ni *tsakak*
- (188) PM *[ji]tsâ(ʼ)j ‘to spill’ > PCh *[ʔi]sáj? • PW *[ʔi]tsáj
- (189) PM *tsémłâ(ʼ)k ~ *tsámłâ(ʼ)k ‘silk floss tree’ > PCh *sémhlāk • PW *tsémłāk^w
- (190) PM *tsóna(?) ‘red brocket’ > PCh *tsóna? • PW *tsóʼnah
- (191) PM *ʔutsi(h) (*-l) ‘eel’ > Mk *utsi (-l)* • Ni *ʔutsi (-k)*

However, the occurrence of *ts* is synchronically limited to the onset position in Nivaçle (Gutiérrez 2015b: 45) and Wichí (Claesson 1994: 15, Terraza 2009b: 42, Nercesian 2014: 50).² This restriction arose as a result of a diachronic deaffrication of PM **ts* > *s* in codas in these languages. Of all Mataguyan languages, only Maká preserves PM **ts* in the coda position.

- (192) PM *-*pháľits* ‘daughter-in-law, sister-in-law’ > Mk *-felits* • Ni *-phakľis-<ʔa>* ‘sister-in-law’ • PCh *-hwéľis* ‘daughter-in-law’
- (193) PM *(-)phétâʼts ‘root’ > Mk *fitets* • Ni *-phetaʼs* • PCh *-hwétus* • PW *(-)x^wétes
- (194) PM *jijáʼts ‘dew’ > Mk *ijeʼts* • Ni *jijaʼs* • PCh **ʔijés-tah* • PW **ʔijás*
- (195) PM *-*léts* ‘offspring’ > Mk *-ľits* • Ni *-kľes* • PCh **-lés* • PW **-lés*
- (196) PM *-*tâ(ʼ)ts*, *-*tâts-él* ‘trunk, base’ > PCh **-tés* (*-*el*) • PW **-tes*, **-têts-el^h*
- (197) PM *-*tâts-uʼk*, *-*tâts-ku-j^h* ‘trunk’ > Ni *-tats-uk*, *-tas-ku-j* • PCh **(-)tés-uk*, **-têts-ku-j^h*
- (198) PM *-(*i*)*ts* ‘PL’ > Mk *-(i)ts* • Ni *-(i)s* • PCh **-(i)s* • PW **-(i)s*
- (199) PM **qatiʼts*, **qatits-él* ‘star’ > Ni *katiʼs* • PCh **qatés*, **qates-él* • PW **qates*, **qatêts-el^h*

²As an exception, in Nivaçle *ts* can occur in codas when followed by *x* or *ph*. Although it could be tempting to assume that the sequences *tsx* and *tsph* are always tautosyllabic in Nivaçle, Gutiérrez (2015b) reports that *ts* does syllabify as a coda in such cases.

2 Consonants

- (200) PM **-qátsile(?)* (**-j^h*) ‘guts’ > PCh **-qásile-j^h* • PW **-qásle-j^h*
- (201) PM **-ʔaqhuʔts* ~ **-ʔaqhúʔts* ‘knee’ > Mk *-aqhuʔts* • Ni *-(ʔa)kxuʔs* • PCh **-ʔaqús*
- (202) PM **ʔátits* ~ **-í-* ~ **-e-* ~ **-é-* ‘wild pepper’ > Mk *atits* • PCh **ʔátés*

In some etyma, the erstwhile presence of an affricate in certain forms is suggested by the synchronically active alternations in Nivačle and Wichí: compare Ni *-fetats-ij* ‘roots’, *-(ʔa)kxatsu-j* ‘knees’, *-tats-uk* ‘trunk’ (where *ts* is syllabified as an onset and thus fails to deaffricate) vs. *-fetas* ‘root’, *-(ʔa)kxuʔs* ‘knee’, *-tas-ku-j* ‘trunks’; PW **-tét-s-el^h* ‘trunks, bases’, **qatét-s-el^h* ‘stars’ vs. **-tes* ‘trunk, base’, **qates* ‘star’.

Both in Nivačle and Wichí, underlying *ts* can also alternate with *t* in the coda position: compare Ni *xa-nuts-xa-jan* ‘I cause him/her to be angry’, *kuts-xanax* ‘thief, robber’, *xa-taβkits-xat* ‘I make him/her/it dizzy’ (see footnote 2 on the status of *tsx*) vs. *xa-nut* ‘I get angry’, *ʔa-t-kut* ‘you steal’, *tsi-taβkit* ‘I am dizzy, I get dizzy’ (Campbell et al. 2020: 50); LB *mati-qut* ‘the one who always drinks mate’ vs. *mati-quts-es* ‘the ones who always drink mate’ (Nercesian 2014: 200). These data suggest that in some cases PM **ts* could deaffricate to *t* in the coda position in Nivačle and Wichí. However, we have been unable to identify Mataguayan etymologies for morphemes that undergo the alternation in question, and the question regarding its diachronic origins thus remains unresolved.

2.1.4 PM **k*

PM **k* is preserved as a velar stop in Maká, whereas in other languages it has suffered a number of splits. In Nivačle, it palatalizes to *tʃ* before or after non-back vowels (PM **i*, **e*, **ä*, **a* > Ni *i*, *e*, *a*), except when preceded by a back vowel, possibly with an intervening [+grave] consonant (see §7.1.1.3 for more details). In Chorote, it is usually reflected as PCh **k* (typically reflected as *k^j* in the contemporary Chorote lects); however, in several cases it is reflected as PCh **q* in onsets when next to the vowel **u*. In Wichí, PM **k* always palatalizes to PW **k^j* in the onset position, whereas in codas it is reflected as PW **q* (phonetically **[k]*) following front vowels and as PW **k^w* following back vowels. The tendency of PM **k* to palatalize in the daughter languages suggests that it may have had a palatalized allophone (at least in onsets when next to front vowels) already in Proto-Mataguayan, as is still the case in Maká (Gerzenstein 1989: 24).

The following examples show the development of PM **k* in the onset position, where it is reflected as Mk *k*, Ni *k* or *tʃ*, PCh **k*, PW **k^j*. The correspondence between a glottalized stop in Maká and a plain stop in Chorote in (219) is irregular.

The failure of PM *k to palatalize in Nivaçle before an *a* in (204) is unexpected; if the gender distinction seen in Maká goes back to Proto-Mataguayan, we might be dealing with a contamination of PM *ká? (masculine) and *ka? (feminine), whose expected reflexes in Nivaçle would be *ká? and *tfa?, respectively.

- (203) PM **φkéna*([?])χ ‘north wind, north’ > Ni *φtfenax* • PCh **hw³kénah*
- (204) PM **k*- ‘that (outside the speaker’s sight)’ > Mk *k-* • Ni *ka?* • PCh **ká?*
- (205) PM **-ka*, **-ká-l* ‘tool, skillful person’ > Ni *-tfa?*(*-k*) • PCh **-ká?*(**-l*) • PW **-k^ja*, **-k^já-l^h*
- (206) PM **-kat* ‘collective of plants’ > Mk *-ket* • Ni *-tfa?* / *-kat* • PCh **-kat* • PW **-k^jat* (**-at* after **k^w*, **q*)
- (207) PM **[ji]ka[?]χ* [?] **[ji]ká[?]χ* ‘to take away’ > Mk *[j]<e>ka[?]χ* • Ni *[ji]tfa[?]x* • PW **[ji]k^jáχ*
- (208) PM **-kán* (**-its*) ‘testicle’ > Ni *-kán-fij* • PCh **-kán<is>* • PW **-k^ján<is>*
- (209) PM **-ká[?]s*, **-kás-él* ‘tail’ > Ni *-ká[?]s*, *-kás-ek* • PCh **-kás* • PW **-k^jás*, **-k^jás-el^h*
- (210) PM **[ji]ká[?]t-APPL* ‘to fall’ > Ni *[ji]ká[?]t-APPL* • PW **[ni]k^ját-APPL*
- (211) PM **kétχa-ju[?]k*, **kétχa-jku-j^h* ‘red quebracho’ > Mk *ke[?]te-jku-* • Ni *tfe[?]txa-juk*, *tfe[?]txa-ku-j* • PCh **kéhla-juk* / **kéhla-jku-* • PW **k^jét-juk^w*, **k^jét-k^ju-j^h*
- (212) PM **[ji]kén* ‘to send’ > Mk *[j]<u>kin* • Ni *[ji]tfen* • PCh **[ʔi]kén* • PW **[ʔi]k^jén*
- (213) PM **-ke?*(**-j^h*) ‘feminine’ > Mk *-ki?*(*-j*) • Ni *-tfe* / *-ke*(*-j*) • PCh **-ke?*(**-j^h*) • PW **-k^je*(**-j^h*)
- (214) PM **khát* ‘cactus’ > Mk *khat-u[?]k* • Ni *kxat* • PCh **káhát* • PW **k^jáhát*
- (215) PM **-kíφah*, **-kíφa-ts* ‘neighbor’ > Mk *-kife*(*-ts*) • Ni *-tfiφa*(*-s*) • PCh **-kíhwah*, **-kíhwa-s*
- (216) PM **-kilá?*(**-wot*) ‘elder brother’ > Ni *-tfe[?]kíla?* / *tfikíla-*(*-βot*) • PCh **-kilá?*(**-wot*) • PW **-k^jíla*
- (217) PM **-kitá?*(**-wot*) ‘elder sister’ > Ni *-tfitá?*(*-βot*) • PCh **-kitá?*(**-wot*) • PW **-k^jíta*
- (218) PM **-ko*([?])*j*(**-á^jh*) ‘hand, arm’ > Mk *-koj*(*-ej*) • PCh **-kój?*, **-koj-á^jh*
- (219) PM **k*([?])*ój-APPL* ‘to be round’ > Mk *k[?]o:j-xi?* • PCh **kój<oj>-APPL*

2 Consonants

- (220) PM **(j)ku-j^h* ‘trees (suffix)’ > Mk *-(j)kw-i* • Ni *-ku-j* • PCh **(j)ku-j^h* • PW **-k^ju-j^h*
- (221) PM **kula[?]j* ~ **kulá[?]j* ‘sun’ > Ni *<xum>kuk^hla[?]j* • PCh **kuláj[?]*
- (222) PM **[ji]kú[?]ʔ* ‘to answer’ > Mk *[j]<e>ku[?]ʔ* • Ni *[ji]ku[?]ʔ* • PCh **[ʔi]kúhl-APPL* • PW **[ni]k^júʔ*
- (223) PM **[t]kú[?]m-APPL* ‘to grab; to work’ > Mk *[te]ku[?]m-APPL* • Ni *[t[?]a]ku[?]m-APPL* • PCh **[ʔi]kúm-APPL* • PW **[t]k^jú^(?)m-APPL*
- (224) PM **-kun* ~ **-kún* ‘to eat (intr.)’ > Ni *<tsak>kun* • PCh **[t[?]<ʔ>já>kun*
- (225) PM **kús* ~ **kúts* ‘heat’ > Mk (?) *kus* (*Pyrocephalus rubinus*) • Ni *kus* • PCh **kús-APPL*
- (226) PM **-kút-ex* ‘to meet’ > Mk *[w(e)]kut-ix-u[?]ʔ* • Ni *[βa]kut-ef* • PCh **[ʔi]kút-eh* • PW **-k^jút-ex*
- (227) PM **kú[?]X₁₂* ‘sweat’ > Ni *-[?]β-ku[?]x* • PW **k^júx^w*
- (228) PM **(-)lká^(?)ʔ* ‘nasal mucus, cold’ > Mk *-leke^(?)ʔ* • PCh **kéʔ* • PW **k^jéʔ-taχ*, **k^jéʔ-ta-s*
- (229) PM **lkéte* ‘squash’ > Mk *lekiti* • PCh **kéte[?]*
- (230) PM **[ji]qáku[?]* ‘to distrust’ > Mk *[je]qeku[?]* • Ni *[ji]kaku* • PCh **[ji]qáku[?]* • PW **[ji]qák^ju-APPL*
- (231) PM **(-)skä[?]t* ‘mesh’ > Ni *-stfa[?]t* • PW **sik^jet*
- (232) PM **-t(á)ko[?]ʔ* (*-l) ‘face’ > Mk *-tko<jek>* • Ni *-tako[?](-k)* • PCh **-tóko[?](*-l)* • PW **-ták^jo* (*-l^h)
- (233) PM **-t(á)ko-se[?]* (*-j^h) ‘eyebrow’ > Mk *-tko-si[?]* (*-j) • PCh **-tóko-se[?]* (*-j^h) • PW **-ták^jo-se* (*-j^h)
- (234) PM **túku^(?)(t)s* ‘ant’ > Ni *tukus* • PCh **túkus*
- (235) PM **-[?]txók-owot* ‘uncles’ > Ni *-[?]txok-oβot* • PCh **-<i>tók-owot*

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêlé, Chorote and Wichí), whose PM age is thus questionable. The correspondence between a plain stop in Wichí and a glottalized stop in Chorote in (248) is irregular.

- (236) PM **(-)jipku[?]* (*-l) ‘hunger’ > Mk *(-)jipku[?](-l)* • Ni *jipku[?]/-jipku* (-k)
- (237) PM **ká[?]lah*, **ká[?]la-ts* ‘lizard’ > PCh **ká[?]lah*, **ká[?]la-s* • PW **k^já[?]lah*, **k^já[?]la-s*

- (238) PM *[ji]kálaʔt ‘to fry’ > Mk [j]<a>kaleʔt • Ni [ji]kaḱlâʔt / -kaḱlâʔt
- (239) PM *[ji]ká(ʔ)t ‘to be red’ > PCh *[ʔi]kát • PW *[ʔi]kʲát
- (240) PM *[ji]káʔ ‘to be torn’ > PCh *[ʔi]káʔ • PW *[ʔi]kʲáʔ
- (241) PM *-kéjá(ʔ)(f.), *-kéjáts(m.), *-ké(j)tsá-ts(pl.) ‘grandchild’ > PCh *-kéjáʔ, *-kéjás, *-kétsás • PW *-kʲéjá, *-kʲéjás, *-kʲétsás
- (242) PM *kójXa(ʔ)t ‘to be heavy’ > PCh *kóhjat-APPL • PW *kʲóhjat
- (243) PM *kóʔl ‘locust’ > PCh *kóʔl • PW *kʲólʰ
- (244) PM *kowäʔx / *-kówäʔx ‘hole’ > PCh *kowéh / *-kóweh • PW *kʲowex / *-kʲóweχ
- (245) PM *ktáʔnih ‘Chaco tortoise’ > PCh *kitáʔnih • PW *kʲtáʔnih
- (246) PM *ktéta(ʔ) ~ *ktáta(ʔ) ‘white algarrobo fruit (*Prosopis elata*)’ > PCh *kitétaʔ • PW *kʲtéta
- (247) PM *[wa]kumaʔχ ‘to run’ > Mk [we]kumaʔχ • Ni [βa]kumaʔx
- (248) PM *k(ʔ)utsá(ʔ)X₁₂ ~ *k(ʔ)utsé(ʔ)χ ‘cháguar (*Bromelia hieronymi*)’ > PCh *kʲusáh • PW *kʲutsáχ
- (249) PM *-kVnt(ʔ)... ‘kidney’ > PCh *-kántʲijaaʔ • PW *-kʲóntowaj
- (250) PM *látsiki-juʔk ‘willow’ > Mk látsiki-juʔk • Ni klâtsiki-juk
- (251) PM *-qáka (*-l) ‘medicine’ > PCh *-qákaʔ (*-l) • PW *-qákʲa (*-lʰ)
- (252) PM *tkéna(ʔ)X₁₂ ~ *tkána(ʔ)X₁₂, *ténX₁₃a-ts ~ *tkánX₁₃a-ts ‘precipice; hill, mountain’ > PCh *tʰkénah, *tʰkéhna-s • PW *tkʲénaχ, *tkʲénha-s
- (253) PM *wkína(ʔ)X₁₂, *wkinX₁₃a-ts ‘metal’ > PCh *wʰkínah, *wʰkínha-s • PW *kʲínaχ, *kʲínha-ts

In the coda position, PM *k is reflected as Mk k, Ni k or *tf*, PCh *k, PW *q or *kʷ* (see §9.1.1.2). Note that this consonant never occurs in codas following the vowel PM *a.

- (254) PM *-ajeʔk ~ *-ajéʔk ‘honey comb’ > Ni -ajeʔtf • PCh *-q-ájek
- (255) PM 1 *h-ák, 2 *ʔ-ák, 3 *[j]ik; CISL *n-äk ‘to go away’ > Mk 1 h-ak, 2 ʔ-ak, 3 ik; CISL n-ek • Ni 1 x-ák, 2 ʔ-ák, 3 [j]itf; CISL n-atf • PCh 1 ʔák, 2 *hl-ék • PW 2 *ʔ-eq, 3 *[j]iq; CISL *n-eq
- (256) PM *(-)ʔetək ~ *-éte- ~ *-eté- ‘mortar’ > Mk (-)ʔtík • Ni -ʔetətʃ • PCh *(-)hwVhlek • PW *xʷéteq
- (257) PM *[ji]ʔiʔk ~ *[ji]ʔíʔk ‘to hide’ > Ni [ji]ʔiʔtf • PCh *[ʔi]hwiʔk

2 Consonants

- (258) PM **φts-uʔk* ‘palm (*Copernicia alba*)’ > Mk *fits-uk* • Ni *φts-uʔk* • PCh **hwis<úk>* • PW **xʷits<ukʷ>*
- (259) PM **-tíʔk* ~ **-tíʔk*, **-tí-jʰ* ‘thread’ > Ni *-tíʔtf*, *-tí-j<is>* • PCh **-hlík*, **-hlí-jʰ*
- (260) PM **-tuʔk*, **-tú-jʰ* ‘yica bag, load’ > Mk *-tuʔk*, *-tu-j* • Ni *-tuʔk* • PCh **-hlúk*, **-hlúj-...* • PW **-tukʷ*, **-tú-j<is>*
- (261) PM **-máʔk*, **-mhá-jʰ* ‘powder, flour’ > Ni *-máʔk*, *-mxá-j* • PCh **-mák* • PW **-mókʷ*, **-mhó-jʰ*
- (262) PM **-muk*, **-mhu-jʰ* ‘feces’ > Mk *-<i>muk*, *-<i>mhu-j* • Ni *(-)<sa>muk*, *(-)<sa>mxu-j* • PCh **-<ʔjá>muk* • PW **-<ʔjá>mukʷ*, **-<ʔjá>mhu-jʰ*
- (263) PM **ʔmók* (**-its*) ‘zorzal bird (*Turdus sp.*)’ > Mk *mok (-its)* • Ni *mok (-is)* • PCh **ʔmók* (**-is*)
- (264) PM **néwo(ʔ)k* ‘wild manioc’ > Ni *noʔok* • PCh (?) **nʷák* • PW **néwokʷ*
- (265) PM **(-)niják*, **(-)níjhá-jʰ* ‘rope, cord’ > Mk *(-)nijak*, *(-)nijha-j* • Ni *-niják*, *-nixá-j* • PCh **niják*, **níjhá-jʰ* • PW **nijákʷ*, **níjhá-jʰ*
- (266) PM **-pʰoʔk* ~ **-pʰoʔk* ‘fence’ > Ni *-pʰoʔk* • PCh **-pʰók* • PW **-pʰokʷ*
- (267) PM **tänúk* (**-its*) ‘feline’ > Mk *tenuk (-its)* • Ni *tanuk (-is)* • PCh **tinúk* (**-is*)
- (268) PM **téwo(ʔ)k* ~ **téwá(ʔ)k* ‘river’ > Ni *toʔok* ~ *toʔák* • PCh **téwok* ~ **téwák* • PW **téwokʷ*
- (269) PM **títe(ʔ)k*, **títje-jʰ* ‘plate’ > Ni *(-)titetf*, *(-)titxe-j* • PCh **títek*, **títje-jʰ*
- (270) PM **tlúʔk* ‘blind’ > Ni *takluʔk* • PCh **tʰlúk* • PW **tilúkʷ*
- (271) PM **-ʔtxoʔk* ~ **-ʔtxóʔk* ‘uncle’ > Mk *-txoʔk* • Ni *-ʔtxoʔk* • PCh **-<i>tók* • PW **-<wi>thokʷ*
- (272) PM **tsänúʔk* ‘duraznillo trees’ > Ni *tsanuʔk* • PCh **sinúk* • PW **tsinúkʷ*
- (273) PM **-(j)uk* ‘tree (suffix)’ > Mk *-(j)uk* • Ni *-(j)uk* • PCh **-(j)uk* • PW **-(j)ukʷ*
- (274) PM **-wáʔk* ‘bad mood’ > Mk *-wak* • Ni *-βáʔk* • PCh **-wák* • PW **-wákʷ*
- (275) PM **wäk* ‘all’ > Mk *wek* • Ni *-batf* • PCh **-wek* • PW **-weq*
- (276) PM **-xáteʔk*, **-xáthe-jʰ* ‘head’ > Ni *-fateʔtf*, *-fatxe-s* • PCh **-hétek*, **-héte-jʰ* • PW **-t-éteq*, **-t-éthe-jʰ*
- (277) PM **xpáʔk* ~ **xpáʔk* ‘straw’ > Mk *xupa(ʔ)k* ~ *xupek* • Ni *xpáʔk* • PCh **ʔipák*
- (278) PM **X₁₃óʔk* ‘palo santo (*Bulnesia sarmientoi*)’ > Ni *xoʔk* • PCh **hók* • PW **hókʷ*

- (279) PM *-X₁₃uʔk, *-X₁₃ú-j^h ‘firewood’ > Ni -xuʔk, -xu-j • PCh *(ʔitâh)-huk • PW *-huk^w, *-hú-j<is>
- (280) PM *ʔaqájeʔk ‘wild honey’ > Ni ʔakâjetf • PW *ʔaqájeq
- (281) PM *[t]ʔä(ʔ)k ‘to eat (intr.)’ > Mk [t]ʔek • PW *[t]ʔeq

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (282) PM *ʔinâk, *ʔinhâ-j^h ‘tobacco’ > Mk finak, finha-j • Ni ʔinâk, ʔinxâ-j
- (283) PM *(-)ʔʔok ~ *(-)ʔʔók (*-its) ‘arrow’ > Mk (-)ʔʔok (-its) • Ni (-)ʔʔok (-is)
- (284) PM *ʔntâ(ʔ)k ‘two’ > PCh *ʔntâk • PW *nitâk^w
- (285) PM *-témä(ʔ)k ~ *-támä(ʔ)k, *-témh-aj^h ~ *-támh-aj^h ‘bile’ > PCh *-témeq, *-témh-aj^h • PW *-témeq, *-témh-aj^h
- (286) PM *tsémłâ(ʔ)k ~ *tsámłâ(ʔ)k ‘silk floss tree’ > PCh *sémhlâk • PW *tsémłâk^w
- (287) PM *-X₁₃úsek ~ *-X₁₃úsäk ‘temperance’ > PCh *-húsek • PW *-húseq
- (288) PM *ʔáte(ʔ)k ~ *ʔátâ(ʔ)k ‘cebil, vinal’ > PCh *ʔátek • PW *ʔáteq
- (289) PM *ʔaʔnqoʔk ‘paralytic’ > Mk onqok • Ni ʔaʔnkoʔk
- (290) PM *ʔomhatäk ~ *ʔomhätäk ‘queen palm fruit’ > Mk omhetek • Ni ʔomxatatf

As we will see in §5.2.3, in some cases stem-final PM *k may alternate with PM *h (or zero after fricatives).

2.1.5 PM *q

PM *q is preserved as a distinct segment in Maká, Proto-Chorote, and Wichí, but not in Nivaçle, where it yields k (phonetically, it can still be pronounced as uvular in some environments, but there is no longer an opposition between velars and uvulars in Nivaçle). In codas, it merges with PM *k as PCh *k in Chorote. Note that when PM *q occurs in a coda position, it can only be preceded by a low vowel (PM *a or â). In one cognate set, there is an irregular correspondence between a plain stop in Nivaçle and a glottalized stop in Chorote (294).

- (291) PM *-âq, *-qá-ts ‘food’ > Mk -aq, -qa-ts • Ni -âk, -kâ-s • PCh *-âk, -qá-s • PW *-t-âq, *-qá<s>

2 Consonants

- (292) PM **-φqató* (**-l*) ‘elbow’ > Ni *-(?V)φkato* (*-k*) • PCh **-qató?* (**-l*) • PW **-qáto* (**-l^h*)
- (293) PM **(-)háqke?* ‘well’ > Mk *haqqi?* ‘river’ • Ni *-xáke* ‘dry well’ • PCh **-hááke?* ‘artificial well’
- (294) PM **-nX₂₃aq(?)át* ‘to snore’ > Ni *[ta]nxakât* • PCh **[?i]hnâq’át*
- (295) PM **qa* ‘in order to’ > Mk *qe* • Ni *ka* • PCh **qa*
- (296) PM **qá-* / **q-* ‘indirect possession’ > Mk *qe-* / *qa-* / *qo-* / *q-* • Ni *ka-* / *k-* • PCh **qá-* / **q-* • PW **qá-* / **q-*
- (297) PM **[ji]qáku?* ‘to distrust’ > Mk *[je]qeku?* • Ni *[ji]kaku* • PCh **[ji]qáku?* • PW **[ji]qák^ju-APPL*
- (298) PM **-qalá?* (**-j^h*) ‘leg’ > Ni *-kaklá?* (*-j*) • PCh **-qa’lá?* ~ **-qá’lá?* (**-j^h*) • PW **-qálá* (**-j^h*)
- (299) PM **qati’ts*, **qatits-él* ‘star’ > Ni *kati’s* • PCh **qatés*, **qates-él* • PW **qates*, **qatés-el^h*
- (300) PM **[t]qánhan* ‘to fish with a hook’ > Mk *[ta]<qa>qanhen* • PCh **[t^ə]qáhnán* • PW **[t]qánhan*
- (301) PM **-qátsile(?)* (**-j^h*) ‘guts’ > PCh **-qásile-j^h* • PW **-qásle-j^h*
- (302) PM **-qéj* (**-its*) ‘custom’ > Ni *-kej* (*-is*) • PCh **-qéj?* (**-is*) • PW **-qéj* (**-is*)
- (303) PM **sláqha(?)j*, **sláqhaj-its* ‘wild cat’ > Ni *sklâkxaj* ~ *sklâkxaj* (*-is*) • PCh **s’lâhqaj?* ~ **s’lâhqâj?* (**-is*) • PW **siláqhâj*
- (304) PM **tsâháq* (**-its*) ‘chajá bird’ > Mk *tsahaq* (*-its*) • PCh **sâhák*, **sâháq-es* ~ **sâháq-is* • PW **tsâháq*
- (305) PM **?aqáje’k* ‘wild honey’ > Ni *?akâjetf* • PW **?aqájeq*
- (306) PM **-?aqhu’ts* ~ **-?aqhú’ts* ‘knee’ > Mk *-aqhu’ts* • Ni *-(?a)kxu’s* • PCh **-?aqús*

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêlé, Chorote and Wichí), whose PM age is thus questionable.

- (307) PM **qapa(?)p* ~ **-ä-* ‘dwarf’ > Mk *qep<ep>e(?)p* • Ni *kapap* ‘dwarf dog’
- (308) PM **-qáka* (**-l*) ‘medicine’ > PCh **-qáka?* (**-l*) • PW **-qák^ja* (**-l^h*)
- (309) PM **[t]qási(?)t* / *-qási(?)t* ‘to stand’ > PCh **[t^ə]qásit* • PW **[t]qásit*, IMP **qásit*

- (310) PM **qatsíwo(?)* ‘limpkin’ > PCh **qasíwo<?oh>* • PW **qatsíwo*
- (311) PM *-*qáwa(?)q* ‘belt, band’ > PCh *-*qáwak* • PW *-*qáwaq*
- (312) PM *-*qá?tu(?)* ‘yellow’ > PCh *-*qá?tu?* • PW **qá?tu*
- (313) PM *-*qótso(?)* ‘node’ > PCh *-*qóso-ke?* • PW *-*qótso*
- (314) PM **stá-ʔq* ‘toothpick cactus (*Stetsonia coryne*)’ > PCh *ʔ^a*stá-k* • PW *ʔ^a*istá-q*
- (315) PM **tsaqaq* ~ *-ä- ‘plant sp.’ > Mk *tseqeq* • Ni *tsakak*
- (316) PM *ʔ^a*nqoʔk* ‘paralytic’ > Mk *onqok* • Ni ʔ^a*nkoʔk*
- (317) PM *-ʔ^a([?])*q* ‘rope, cord’ > PCh *-ʔ^a*k* • PW *-*t-ʔa*q

2.1.6 PM *ʔ

In Proto-Mataguayan, as in most contemporary Mataguayan varieties, all syllables are required to have an onset, unless the nucleus is a syllabic consonant (see §2.6). The default consonant inserted in order to satisfy this requirement is PM *ʔ. For example, underlying vowel-initial stems such as PM *-*áse?* ‘daughter’ (which contrast with underlying PM *ʔ-initial stems, such as *-*ʔútu* ‘urine’) take a zero allomorph of the second-person prefix, and a glottal stop is inserted in order to prevent the resulting word from starting with an onsetless syllable: compare PM *ʔ^a*áse?* ‘your daughter’ (with an inserted glottal stop) and *ʔ^a*útu* ‘your urine’ (with an underlying glottal stop). For similar rules in the contemporary Mataguayan languages, see Gutiérrez (2015b: 43, 67, 102–105) for Nivačle, Carol (2014a: 90) for Iyojwa’aja’ (word-initially only).

If a stem that starts with PM *ʔ is incompatible with prefixes, it is impossible to determine whether the glottal stop is inserted or underlying. This is also the case with intervocalic occurrences of PM *ʔ within a morpheme. Whether one analyzes them as underlying or epenthetic is, therefore, a matter of one’s theoretical preferences. In the contemporary languages, PM *ʔ in onsets is preserved at least in Nivačle, Iyojwa’aja’, Manjui, Weenhayek, Lower Bermejeño Wichí, and possibly other varieties, except that in Wichí it dissimilates to PW **h* whenever the onset of the following syllable is a glottalized consonant. In Maká, PM *ʔ is preserved between vowels, but not word-initially. Some examples follow; note that in (331) the initial syllable is irregularly lost in Wichí (provided that the Wichí datum belongs to the cognate set in question).

- (318) PM **ʔaʔáj* ‘algarrobo fruit (*Prosopis alba*)’ > Ni *ʔaʔaj* • PCh **hwaʔáj?* • PW **x^waʔáj^h*

2 Consonants

- (319) PM *núʔuh, *núʔu-ts ‘dog’ > Ni núʔu (-s) • PCh *núʔuh, *núʔu-s
- (320) PM *ʔaʔu ~ *ʔaʔú ‘woman’ > Mk efu • PCh *ʔahwúʔ
- (321) PM *ʔáʔu(ʔ) ‘iguana’ > Ni ʔaʔu (-s) • PCh *ʔáhluʔ (*-s) • PW *ʔáʔu
- (322) PM *ʔámʔáh, *ʔámʔá-ts ‘rat’ > Ni ʔamʔá (-s) • PCh *ʔámʔah ~ *ʔámʔáh, *ʔámʔa-s ~ *ʔámʔá-s • PW *ʔáma
- (323) PM *ʔápʔa(ʔ)χ ~ *ʔáʔʔa(ʔ)χ ‘jararaca’ > Ni ʔapʔax • PCh *ʔápʔah
- (324) PM *ʔaqáʔe k ‘wild honey’ > Ni ʔakáʔetʃ • PW *ʔaqáʔeʒ
- (325) PM *ʔatuʔχ ~ *ʔatúʔχ ‘snake sp.’ > Ni ʔatuʔx • PCh *ʔatúh
- (326) PM *ʔáwu(C)tseχ ‘peccary’ > Ni ʔaʔuktseχ ~ ʔaʔoktseχ • PCh *ʔáwusah • PW *ʔáwutsaχ
- (327) PM *ʔáxaʔ ‘stork’ > Mk exeʔ ‘maguari stock’ • PCh *ʔáhaʔ ‘jabiru’
- (328) PM *ʔaX₁₃ájje(ʔ)χ ‘mistol fruit’ > Ni ʔaxájex • PCh *ʔahájjah • PW *ʔahájjaχ
- (329) PM *ʔaX₁₃áj-uʔk, *ʔaX₁₃áj-ku-j^h ‘mistol tree’ > Ni ʔaxáj-uk, ʔaxáj-ku-j • PCh *ʔaháj-uk, *ʔaháj-ku-j^h • PW *ʔaháj-uk^w
- (330) PM *ʔál(V)tse(ʔ)χ, *ʔál(V)tse-ts ‘chágua (Deinacanthon urbanianum)’ > Ni ʔáktseχ, ʔáktse-s • PCh *ʔálʔsah, *ʔálʔse-s • PW *ʔáletsaχ
- (331) PM *ʔáʔlá-taχ, *ʔáʔlá-ta-s ‘Argentine boa’ > Ni ʔáʔklá-tax, ʔáʔklá-ta-s • PCh *ʔáʔlá<ta> ~ *ʔáʔlá<ta>, *ʔáʔlá<ta>-s ~ *ʔáʔlá<ta>-s • PW (?) *ʔá<ta>χ
- (332) PM *ʔánhajeχ ‘wild bean (Capparis retusa)’ > Mk anhejaχ • Ni ʔánxajex • PCh *ʔóhnajah • PW *ʔánhjaχ
- (333) PM *ʔánitih ‘wasp sp.’ > Ni ʔániti • PCh *ʔánitih
- (334) PM *ʔáskʔála(ʔ)χ ‘widower’ > Ni ʔástʔaklax • PCh *ʔáskʔélah
- (335) PM *ʔátits ~ *-í- ~ *-e- ~ *-é- ‘wild pepper’ > Mk atits • PCh *ʔátés
- (336) PM *ʔéle(ʔ) ‘parrot’ > Ni ʔekle • PCh *ʔéleʔ • PW *ʔéle
- (337) PM *ʔítá(ʔ)χ, *ʔítá-ts ‘fire’ > Ni ʔitáχ, ʔitá-s • PCh *ʔitáh, *ʔitá-s • PW *ʔitáχ, *ʔitá-s
- (338) PM *ʔóna(ʔ)χ ‘my brother’ > Ni ʔonax • PCh *ʔónah
- (339) PM *ʔóʔoʔ (*-ts) ‘pigeon’ > Mk ofoʔ (-l) • Ni ʔóʔo (-s) • PCh *ʔóhwoʔ (*-s)
- (340) PM *ʔúlʔáh, *ʔúlʔá-ts ‘dove’ > Ni ʔuklʔá (-s) • PCh *ʔúlʔáh, *ʔúlʔá-s
- (341) PM *ʔVláʔah, *ʔVláʔa-ts ‘lesser grison’ > Mk ile • Ni ʔakláʔa (-s) • PCh *ʔeláʔah, *ʔeláʔa-s ~ *ʔaláʔah, *ʔaláʔa-s • PW *ʔiláʔah

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable. The correspondence in (342) seems somewhat irregular.

- (342) PM **ʒiʔixâtaχ*, **ʒiʔixâta-ts* ‘ocelot’ > Mk *iʔixataχ*, *iʔixate-ts* • Ni *jixâtax*, *jixâta-s*
- (343) PM **ʒaʔnqoʔk* ‘paralytic’ > Mk *onqok* • Ni *ʒaʔnkoʔk*
- (344) PM **ʒâte(ʔ)k* ~ **ʒâtä(ʔ)k* ‘cebil, vinal’ > PCh **ʒâtek* • PW **ʒâteq*
- (345) PM **ʒatʔe(ʔ)(t)s* ~ **ʒatʔä(ʔ)(t)s* ‘aloja drink’ > PCh **ʒatʔés* • PW **hatʔés*
- (346) PM **ʒatsXa(ʔ)*, **ʒatsXá-l* ‘dorado’ > PCh **ʒasáʔ* (*-l) • PW **ʒatsha(ʔ)*, **ʒatshá-l^h*
- (347) PM **ʒâφteʔl* ‘orphan’ > Mk *aftiʔl* • Ni *ʒâφteʔk*
- (348) PM **ʒâthajex* ~ **ʒâthäjex* ‘molle fruit’ > Mk *athejaχ* • Ni *ʒâtxajex*
- (349) PM **ʒomhatäk* ~ **ʒomhätäk* ‘queen palm fruit’ > Mk *omhetek* • Ni *ʒomxatatf*
- (350) PM **ʒutsi(h)* (*-l) ‘eel’ > Mk *utsi* (-l) • Ni *ʒutsi* (-k)

In (351), PM **ʔ* occurs between vowels at a root–suffix boundary. This was preserved in Maká; note that intervocalic glottal stops must be flanked by identical vowels in that language due to translaryngeal harmony (Gerzenstein 1994: 62). Nivaçle has eliminated the second vowel altogether. In Chorote and Wichí, one finds hiatus-filling approximants in place of PM **ʔ*, as in Ijw [*ti*]*póʒi*, Mj [*ta*]*pówe*, PW **[t]pójeχ* (since different hiatus-filling approximants are found in different Chorote varieties, we assume that the glide insertion occurred there independently and reconstruct a vowel sequence for Proto-Chorote).

- (351) PM **[t]póʔ-ex* ‘to be full’ > Mk [*to*]*poʔ-ox* • Ni [*to*]*poʔ-x* • PCh **[tʰ]pó-eh* • PW **[t]pó-jeχ*

PM **ʔ* is clearly contrastive at the left edge of stems which are compatible with prefixes. After a prefix that ends in a consonant, the stem-initial glottal stop surfaces as glottalization on that consonant, something that does not occur in vowel-initial stems. For example, underlying vowel-initial stems such as PM **-áseʔ* ‘daughter’ and **ʔ*-initial stems such as **-ʒútu* ‘urine’ behave differently when they combine with the third-person prefix **t-*: compare PM **táseʔ* ‘her/his daughter’ and **tʰútu* ‘her/his urine’. The distinction is systematically maintained in all contemporary Mataguan languages.

2 Consonants

- (352) PM *[t]'áʔt̚ 'to ask' > Ni [t]'aʔt̚ • PCh *[t]'át̚ • PW *[t]'át̚
- (353) PM *-ʔaɣhuʔts ~ *-ʔaɣhúʔts 'knee' > Mk -aɣhuʔts • Ni -(ʔa)kxuʔs • PCh *-ʔaɣús
- (354) PM *-ʔáX₂₃te(ʔ) (*-j^h) 'female breast' > Ni -ʔaxte (-j) • PCh *-ʔáhateʔ (*-j^h) • PW *-t-ʔáte (*-j^h)
- (355) PM *ʔáʔjtex, *ʔáʔjete-ts 'to hurt' > Mk aʔtaɣ, aʔti-ts • Ni ʔáʔjtex ~ ʔáʔβtex • PCh *ʔáʔjtaɣ-APPL, *-ʔáʔjete-s-APPL • PW *ʔáʔjtaɣ, *ʔáʔjete-s
- (356) PM *[t]'ás 'to step' > Ni [t]'ás • PCh *[t]'ás • PW *[t]'ás-APPL
- (357) PM *-ʔáx (*-its) 'skin, bark' > Mk -ʔax (-its) • Ni -ʔáx (-is) • PCh *-ʔáh, *-ʔáh-és • PW *-t-ʔáx, *-t-ʔáh-és
- (358) PM *[t]'ä(ʔ)k 'to eat (intr.)' > Mk [t]'ek • PW *[t]'eq
- (359) PM *-ʔäsɣaʔn, *-ʔäsɣán-its 'meat' > Mk -ʔeseʔn, -ʔesen-its • Ni -(ʔa)sxaʔn, -(ʔa)sxan-is • PCh *-ʔisáʔn, *-ʔisán-is • PW *-t-'isaʔn, *-t-'isán-is
- (360) PM *ʔ[j]éjxáts-han 'to teach' > Mk [j]ixats<hen> • Ni [j]ejxats-xan / -ʔejxats-xan • PCh *ʔ[j]éjáhás<an>
- (361) PM *-ʔet̚ ~ *-ʔét̚ 'other' > Ni -ʔet̚ • PW *-ʔet̚ ~ *-ʔét̚
- (362) PM *-ʔi (*-l) 'liquid, juice' > Mk 3 ʔ-iʔ (-l) • Ni -ʔiʔ (-k) • PCh *-ʔiʔ (*-l) • PW *-t-ʔi (*-l^h)
- (363) PM *ʔ[j]im 'to dry out' > Mk [j]im • Ni [j]im • PCh *ʔ[j]im-APPL • PW *ʔ[j]im
- (364) PM *ʔis 'good' > Ni ʔis • PCh *ʔís • PW *ʔis
- (365) PM *ʔ[j]om 'to be extinguished' > Mk [j]om • PCh *ʔ[j]óm-APPL • PW *ʔ[j]om
- (366) PM *ʔ[j]o 'to be ripe' > PCh *ʔ[j]ó-ʔeʔ • PW *ʔ[j]o
- (367) PM *-ʔoʔt̚ ~ *-ʔóʔt̚ 'chest' > Ni -ʔoʔt̚ • PCh *-ʔót̚
- (368) PM *-ʔúʔt̚ 'to urinate' > Mk uʔ / -ʔuʔt̚ • Ni [j]uʔt̚ / -ʔuʔt̚ • PCh *[t]'úʔt̚ • PW *[t]'úʔt̚
- (369) PM *-ʔúʔtu(ʔ) 'urine' > Ni -ʔuʔtu • PCh *-ʔúhluʔ • PW *-t-ʔúʔtu

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêlé, Chorote and Wichí), whose PM age is thus questionable.

- (370) PM *-ʔatá(ʔ) 'fat' > PCh *-ʔahláʔ • PW *-t-'atá(ʔ)

- (371) PM *-ʔa(?)q ‘rope, cord’ > PCh *-ʔák • PW *-t-’aq
 (372) PM *[t]’at’o ‘to yawn’ > Mk [t]ot’o-kij • Ni [t]’at’o
 (373) PM *ʔ[n]áφé(?)t ~ *ʔ[n]áφá(?)t ‘to be ashamed’ > PCh *ʔ[n]áhweł • PW
 *ʔ[n]áx^wét[?] ~ *ʔ[n]áx^wél^h
 (374) PM *-ʔá(?)l, 3 *ʔ[j]i(?)l ‘to die’ > PCh *ʔ[j]á(?)l • PW *ʔ[j]il^h
 (375) PM *-ʔó[?]thale(?) ~ *-ʔó[?]thále(?) ‘heart’ > PCh *-ʔóhtale? ~ *-ʔóhtále? • PW
 *-t-’ótle

In (376), the correspondence is irregular: Nivaçle and Chorote point to an underlying vowel-initial stem, whereas Wichí and Maká point to a *ʔ-initial stem. Furthermore, the Maká verb is semantically off, and may turn out to be noncognate.

- (376) PM *[t]’án ‘to shout’ > Mk (?) [t]’an ‘to win’ • Ni [t]’án • PCh *[t]’án • PW *[t]’án

PM *ʔ is also contrastive in the word-final position, where it is best preserved in Maká. In Nivaçle and Wichí, it is usually preserved, but it is deleted in posttonic syllables in both languages (see §7.1.1.8, §9.1.1.14). Note that the loss of word-final PM *ʔ occurred independently in Nivaçle and Wichí, given that in the latter language it was fed by the accentual retraction process (§9.1.3). In Chorote, PM *ʔ was preserved, but the erstwhile contrast between its presence and absence was lost because *ʔ was inserted at the end of *all* words that ended in a vowel or in PCh *j (in fact, Carol 2014a synchronically analyzes all word-final instances of [ʔ] as automatic in the Iyojwa’aja’ variety of Chorote); see §8.1.1.6 for details.

- (377) PM *-á? (*-j^h) ‘fruit’ > Mk 3 t-e? (-j) • Ni -a?(-j) • PCh 3 *hl-á? (*-j^h) • PW
 -t-á? (-j^h)
 (378) PM *-á(-j^h)-xi? (*-l) ‘mouth’ > Mk -e<xi?> (-l) • Ni -a<fi> (-k) • PCh
 (?) *á<aj?> • PW *-t-áj-hi (*-l^h)
 (379) PM *-áse? ‘daughter’ > Mk -asi? • Ni -áse • PCh *-áse? • PW *-t-áse
 (380) PM *φajXo?, *φajXó-l / *φájXo? (*-l) ‘coal’ > Ni (-)φajxo? (-k) • PCh
 *hwa(h)jo- • PW *x^wijho(?), *x^wijhó-l^h / *x^wijho (*-l^h)
 (381) PM *-fál?u? (*-ts) ‘son-in-law, brother-in-law’ > Mk -felu? (-ts) • Ni
 -fakl?u (-s) ‘brother-in-law’ • PCh *-hwílu? [?] -hwélu? (*-s) ‘son-in-law’
 (382) PM *(-)háqke? ‘well’ > Mk haqqi? ‘river’ • Ni -xáke ‘dry well’ • PCh
 *-hááke? ‘artificial well’

2 Consonants

- (383) PM *[ji]jǎʔ ‘to drink’ > Mk <i>jaʔ • Ni [ji]jǎʔ • PCh *[ʔi]ʔjǎʔ • PW *[ʔi]jǎʔ
- (384) PM *jiʔlǎʔ, *jiʔlǎʔ-jʰ ‘tree’ > Ni jiʔkǎʔ (-j) • PCh *ʔaʔlǎʔ (*-jʰ) • PW *haʔlǎʔ, *haʔlǎʔ-jʰ
- (385) PM *jitʔǎʔ, *jitʔǎʔ-l ‘vulture’ > Ni jitʔǎʔ (-k) • PCh *ʔatʔǎʔ (*-l) • PW *hatʔǎʔ(?)
- (386) PM *-kʔǎxeʔ (*-l) ‘arrow’ > Mk -qaxiʔ (-l) • Ni -kʔǎxe • PCh *-kʔǎheʔ (*-l) • PW *-kʔǎhe (*-lʰ)
- (387) PM *-keʔ (*-jʰ) ‘feminine’ > Mk -kiʔ (-j) • Ni -tfe / -ke (-j) • PCh *-keʔ (*-jʰ) • PW *-kʔe (*-jʰ)
- (388) PM *-kilǎʔ (*-wot) ‘elder brother’ > Ni -tfeǎʔ / tʔikǎʔ (-βot) • PCh *-kilǎʔ (*-wot) • PW *-kʔila
- (389) PM *-kitǎʔ (*-wot) ‘elder sister’ > Ni -tʔitaʔ (-βot) • PCh *-kitǎʔ (*-wot) • PW *-kʔita
- (390) PM *-kʔinxǎʔ[?] *kʔinxǎʔ (*-wot) ‘younger sister’ > Mk -kʔinxǎʔ[?] -kʔinxǎʔ[?] • Ni -tʔinxǎʔ (-βot) • PCh *-kʔihnǎʔ (*-wot) • PW *-kʔinhǎʔ
- (391) PM *-lǎʔ, *-lǎʔ-jʰ ‘domestic animal’ > Ni -kǎʔ (-j) • PCh *-lǎʔ<hwah> • PW *-lǎʔ, *-lǎʔ-jʰ
- (392) PM *(-)ǎʔ, *(-)ǎʔ-ts ‘louse’ > Mk <ij>ǎʔ (-ts) • Ni -ǎʔ (-s) • PCh *-hlǎʔ (*-s) • PW *ǎʔ
- (393) PM *-nX₂₃atǎʔ ‘nasal mucus’ > Ni -nxatǎʔ • PCh *-hnǎʔ<ijah-PL>
- (394) PM *ǎ-xǎʔeʔ (*-l) ~ *ǎ-xǎʔiʔ ‘dream, sleepiness’ > Mk -nixatiʔ (-l) • Ni nxǎʔe (-k) • PCh *ʔihnǎʔiʔ • PW *nahǎʔi
- (395) PM *ʔnǎjǎnxteʔ ‘tapeti rabbit, cavy’ > Mk nijaxtiʔ • Ni nǎnxate • PCh *ʔnǎhǎʔeʔ • PW *xǎnǎʔe
- (396) PM *-óʔ (*-jʰ) ‘seed’ > Mk 3 ǎ-oʔ (-j) • PCh *-óʔ • PW *-ǎ-óʔ (*-jʰ)
- (397) PM *-peʔ(?), *-peʔ-l ‘fat’ > Ni <a>peʔ (-k) • PCh *-péʔ (*-l) • PW *-peʔ(?)
- (398) PM *-pxúseʔ (*-jʰ) ‘beard’ > Mk <a>pxusiʔ (-j) • Ni -pǎse (-j) • PCh *-púseʔ (*-jʰ) • PW *-pǎse (*-jʰ)
- (399) PM *-qǎlǎʔ (*-jʰ) ‘leg’ > Ni -kǎkǎʔ (-j) • PCh *-qǎʔlǎʔ ~ *-qǎʔlǎʔ (*-jʰ) • PW *-qǎlǎʔ (*-jʰ)
- (400) PM *-tǎmteʔ (*-ts) ‘daughter-in-law’ > Ni -tǎmte<ʔe> (-s) • PCh *-tǎmteʔ (*-s)
- (401) PM *-tǎtseʔ (*-jʰ) ‘eyelash’ > Mk -tetsiʔ (-j) • Ni -tǎtse (-j) • PCh *-tǎseʔ (*-jʰ)

- (402) PM **-teʔ*, **-té-jʰ* ‘eye’ > Mk *-t<oʔ>* (-j) • PCh **-ta-téʔ* (*-jʰ) • PW **-t(a)-teʔ* (*-jʰ)
- (403) PM **-t(á)koʔ* (*-l) ‘face’ > Mk *-tko<jek>* • Ni *-takoʔ* (-k) • PCh **-tókoʔ* (*-l) • PW **-tákʰo* (*-lʰ)
- (404) PM **-t(á)ko-seʔ* (*-jʰ) ‘eyebrow’ > Mk *-tko-siʔ* (*-j) • PCh **-tóko-seʔ* (*-jʰ) • PW **-tákʰo-se* (*-jʰ)
- (405) PM **-tʰíleʔ* (*-jʰ) ‘rheum’ > Mk *-tʰiliʔ* (-j) • Ni *-tʰíkle* (-j) • PCh **-tʰíle-*
- (406) PM **tʰisáʔ* ~ *tʰisáʔ* (*-l) ‘cream-backed woodpecker (*Campephilus leucopogon*)’ > Mk *tʰisaʔ* (-l) • Ni *tʰisáʔ* (-k) • PCh **tʰisáʔ* (-l)
- (407) PM **-waʔ* ‘plural (demonstratives)’ > Mk *-weʔ* • Ni *-βaʔ* • PCh **-wáʔ*
- (408) PM **wijeʔ* ‘caraguatá (*Bromelia serra*)’ > Ni *βijeʔ* ~ *jijeʔ* • PCh **wijéʔ* • PW **ʷujeʔ*
- (409) PM **-wóʔ* (*-ts) ‘expert’ > Mk *-woʔ* (-ts) • Ni *-βoʔ* (-s) • PCh **-wóʔ* (*-s) • PW **-wóʔ* (*-s)
- (410) PM **-ʷhíʔ* ~ **-ʷhíʔ*, **-ʷhí-ts* ‘rib’ > Mk *-ʷehíʔ* (-ts) • Ni *-ʷhí / -βhíʔ* (-s) • PCh **-hlí<s>*
- (411) PM **xéjâʔ* (*-l) ‘bat’ > Mk *xajaʔ* (-l) • Ni *fejâ* (-k) • PCh **<a>héjaʔ* (*-l)
- (412) PM **-xâʔn(eʔ)* ‘verbal plural (suffix)’ > Ni *-faʔneʔ / -xaʔneʔ* • PCh **-heʔn(eʔ)* • PW **-heʔn*
- (413) PM **ʔáxaʔ* ‘stork’ > Mk *exeʔ* ‘maguari stock’ • PCh **ʔáhaʔ* ‘jabirú’
- (414) PM **ʔéjaʔ* (*-l) ‘mosquito’ > Mk *ijeʔ* (-l) • Ni *jijaʔ* • PCh **ʔéjaʔ* (*-l)
- (415) PM **ʔófoʔ* (*-ts) ‘pigeon’ > Mk *ofoʔ* (-l) • Ni *ʔófo* (-s) • PCh **ʔóhwoʔ* (*-s)

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêlé, Chorote and Wichí), whose PM age is thus questionable.

- (416) PM **fánhaʔ* ~ **fánhaʔ* (*-jʰ) ‘locust’ > Mk *<e>fenheʔ* (-j) • Ni *fanxa* (-j)
- (417) PM **(-)jipkuʔ* (*-l) ‘hunger’ > Mk *(-)jipkuʔ* (-l) • Ni *jipkuʔ / -jipku* (-k)
- (418) PM **[ji]káʔ* ‘to be torn’ > PCh **[ʔi]káʔ* • PW **[ʔi]káʔ*
- (419) PM **kʰunhate-nhaʔ* ‘pacu fish’ > Mk *<i>kʰunheti-nheʔ* (-j) • Ni *kʰunxate<nxa>* (-j)
- (420) PM **-íʔwteʔ* ‘heart’ > Mk *-titiʔ* • Ni *-íʔbte*
- (421) PM **-qáʔtuʔ* ‘yellow’ > PCh **-qáʔtuʔ* • PW **qáʔtu*

2 Consonants

- (422) PM **silóʔtãɸV* ~ **siwóʔtãɸe* ‘Caatinga puffbird’ > PCh **silóʔtãhwV?* • PW **siwótãx^we*
- (423) PM **-xéleʔ* ‘dirt’ > Mk *-xiliʔ* • Ni *-feklé*

In some cases, word-final glottal stops in Maká and Nivaçle appear not to reconstruct to Proto-Mataguayan, as evidenced by the Lower Bermejeño Wichí cognates (where no glottal stop is found). We suggest that Maká and Nivaçle underwent ʔ-epenthesis in roots of the shape (C)V (see §6.1.7, §7.1.1.9).

- (424) PM **-e*, **-é-l* ‘thorn’ > Mk 3 *ʔ-iʔ* • Ni *-eʔ(-k)* • PCh 3 **hl-éʔ(*-l)* • PW **-ʔ-e*
- (425) PM **[ji]mã* ‘to sleep’ > Mk *[i]maʔ* • Ni *[ji]mãʔ* • PCh **[ʔi]mãʔ* • PW **[ʔi]mã*
- (426) PM **-ó(*-l)* ‘penis’ > Ni *-oʔ(-k)* • PCh **-óʔ(*-l)* • PW **-ʔ-ó(*-l^h)*
- (427) PM **-wó(*-ts)* ‘worm’ > Ni *-βoʔ(-s)* • PCh **-wóʔ(*-s)* • PW **-wó(*-s)*
- (428) PM **-w(t)s'é(*-l)* ‘belly’ > Ni *-βts'e(-k)* • PCh **-ts'éʔ(*-l)* • PW **-ts'é(*-l^h)*
- (429) PM **-xa*, **-xá-l* ‘price’ > Ni *-faʔ(-k)* • PW **-ha*, *-há-l^h*
- (430) PM **-ʔi(*-l)* ‘liquid, juice’ > Mk 3 *ʔ-iʔ(-l)* • Ni *-ʔiʔ(-k)* • PCh **-ʔiʔ(*-l)* • PW **-t-ʔi(*-l^h)*

2.1.7 PM **ɸ*

PM **ɸ* is preserved as a bilabial fricative only in Nivaçle, at least in the Chishamnee Lhavos dialect.³ In other languages, its reflexes are Mk *f*, PCh **hw* (in onsets) or **ɸ* (in codas), and PW **x^w*. Note the irregular reflexes in Wichí in two examples: **w* in (447) and **p* in (461) (unless it turns out to be the regular outcome of the preglottalized coda **ʔɸ*, see §2.3).

- (431) PM **-äɸ*, **-ɸã-tʂ* ‘wing’ > Mk 3 *ʔ-ef*, *ʔe-fe-tʂ* • Ni *-aɸ*, *-<a>ɸa-s* • PCh **-hw<és>* • PW **-ʔ-ex^w*
- (432) PM **-ɸah*, **-ɸa-tʂ* ‘companion’ > Mk *-fe(-tʂ)* • Ni *-ɸa(-s)* • PCh **-hwah*, **-hwa-s* • PW **-x^wah*, **-x^wa-s*
- (433) PM **ɸajXoʔ*, **ɸajXó-l* / **-ɸájXoʔ(*-l)* ‘coal’ > Ni *(-)ɸajxoʔ(-k)* • PCh **hwa(h)jo-* • PW **x^wijho(ʔ)*, **x^wijhó-l^h* / **-x^wijho(*-l^h)*

³Campbell et al. (2020: 29, 81) state emphatically that this consonant is articulated as bilabial and not labiodental, at least in their data. In Gutiérrez’s (2015b) work, [ɸ] is said to be an allophone of /f/. An anonymous reviewer reports that the labiodental fricative is now the most extended realization in Nivaçle, according to their field data.

- (434) PM *-*phá-ʔmat* ‘disease’ > Mk <eq>*fe-ʔmet* • Ni -*pha-ʔmat* • PCh *-*hwá-ʔmat*
- (435) PM *-*phapá(ʔ)* ‘shoulder’ > PCh *-*hwopóʔ* • PW *-*xwápo*
- (436) PM *-*phapá-keʔ* ‘shoulder blade’ > Ni -*phápá-ke* • PCh *-*hwopó-keʔ*
- (437) PM **phaʔt* ~ **pháʔt* ‘fire’ > Mk *feʔt* • PCh **hwát*
- (438) PM **phátsu(ʔ)χ*, **phátshu-ts* ‘centipede’ > Ni *phatsux*, *phatsxu-s* • PCh *(h)*wásuh*, *(h)*wásu-s* • PW **xwátsux^w*
- (439) PM *[*ji*]*pháʔx* ‘to cut down’ > Mk *fex-inet-kiʔ* ‘ax’ • Ni [*ji*]*phaʔf* • PCh *[*ʔi*]*hwáh-APPL* • PW *[*ʔi*]*xwáχ*
- (440) PM **phaʔáj* ‘algarrobo fruit (*Prosopis alba*)’ > Ni *phaʔaj* • PCh **hwaʔájʔ* • PW **xwaʔáj^h*
- (441) PM **phaʔáj-uʔk*, **phaʔáj-ku-j^h* ‘algarrobo tree (*Prosopis alba*)’ > Ni *phaʔaj-<j>uk* • PCh **hwaʔáj-uk*, **hwaʔáj-ku-j^h* • PW **xwaʔáj-uk*, **xwaʔá-kⁱ-u-j^h*
- (442) PM *-*phájiʔx* ‘right’ > Mk -*fejiʔx* ‘left’ • Ni -*phajiʔf* • PCh *-*hwíjah*
- (443) PM *[*ji*]*phál* ‘to tell’ > Mk *n(i)-fel-im* • Ni *n(i)-phak* / *n(i)-phákl̩-* • PCh *[*ʔi*]*hwél* • PW *[*ʔi*]*xwél^h* / *[*ʔi*]*xwél-*
- (444) PM *-*pháľits* ‘daughter-in-law, sister-in-law’ > Mk -*felits* • Ni -*phákl̩s-<ʔa>* ‘sister-in-law’ • PCh *-*hwéľis* ‘daughter-in-law’
- (445) PM *-*phálʔuʔ* (*-*ts*) ‘son-in-law, brother-in-law’ > Mk -*feluʔ* (-*ts*) • Ni -*phákl̩ʔu* (-*s*) ‘brother-in-law’ • PCh *-*hwíluʔ* ~ -*hwéluʔ* (*-*s*) ‘son-in-law’
- (446) PM **pháʔx* ~ **pháʔx* ‘field’ > Ni *phaʔf* • PCh **hwéh*
- (447) PM *[*ji*]*pháʔjá* ~ **pháʔjá* ‘to fly’ > Ni [*ji*]*pháʔjá* • PCh *[*ʔi*]*hwéʔjáʔ* • PW **xweʔjá* ~ **w-ʔ* **-i-*
- (448) PM *(-)*phétek* ~ *-*éte-* ~ *-*eté-* ‘mortar’ > Mk (-)*fitik* • Ni -*phéteʔf* • PCh *(-)*hwVhlek* • PW **xwéteq*
- (449) PM *(-)*phéťáʔts* ‘root’ > Mk *fitets* • Ni -*phétaʔs* • PCh *-*hwétus* • PW *(-)*xwétes*
- (450) PM *[*ji*]*phiʔj* ~ *[*ji*]*phiʔj* ‘not to be afraid’ > Ni [*ji*]*phiʔj* • PCh *[*ʔi*]*hwíjʔ* • PW *[*ʔi*]*xwíj-eh*
- (451) PM **phiʔjăt* ‘cold weather, south wind’ > Ni *phiʔjat* • PCh **hwiʔjét* • PW **xwiʔjét*
- (452) PM *[*ji*]*phiʔk* ~ *[*ji*]*phiʔk* ‘to hide’ > Ni [*ji*]*phiʔtf* • PCh *[*ʔi*]*hwík*
- (453) PM **phinä(ʔ)χ* ‘crab’ > Ni *phinax* • PCh **hwíneh*

2 Consonants

- (454) PM **phis-kat* ‘palm grove (*Copernicia alba*)’ > Mk *fis-ket* • Ni *phis-tfat*
- (455) PM **phi’s* ‘leech’ > Ni *phi’s* • PW **x^wis*
- (456) PM **-phu^tt* ~ **-phú^tt*, **-ph^tú-ts* ‘flatulence’ > Mk *-ftu-ts* • Ni *-phu^tt*, *-ph^tu-ts* • PCh **-hwút*
- (457) PM **-kíphah*, **-kípha-ts* ‘neighbor’ > Mk *-kife (-ts)* • Ni *-t^fípha (-s)* • PCh **-kíhwah*, **-kíhwa-s*
- (458) PM **-k’álphah* ‘spouse’ > Ni *-t^fakpha* • PCh **-k’élhwah* • PW **-k’^jéx^wah*
- (459) PM **[ni]-táphä(°)l-APPL* ‘to know, to be acquainted’ > Ni *[ni]táphakl-APPL* • PCh **[ʔi]táhwel-APPL* • PW **-táx^wel-APPL* / **-táx^wnh-APPL*
- (460) PM **tiφ* ~ **tíφ* ‘to spend’ > Ni *tiφ* • PCh **[ʔi]tím*
- (461) PM **ti^fφ* ‘to suckle’ > Mk *tu^f/-tu^f* • Ni *ti^fφ* • PCh **[ʔi]tím* • PW **tip*
- (462) PM **tsópha(°)* ‘fruit of a shrub (*Maytenus vitis-idaea*)’ > PCh **sóhwa?* • PW **tsóx^wa(°)*
- (463) PM **tsópha-taχ* ‘fruit of a shrub (*Lycium americanum*)’ > Mk *tsofe-taχ* • Ni *tsoφ-tax*
- (464) PM **tsópha-ta-(ju)^k* ‘shrub (*Lycium americanum*)’ > Mk *tsofe-te-k* • Ni *tsoφ-ta-juk* • PW **tsóx^wa-t-uk^w*
- (465) PM **ʔaφu* ~ **ʔaφú* ‘woman’ > Mk *efu* • PCh **ʔahwú?*
- (466) PM **ʔóφo?(°-ts)* ‘pigeon’ > Mk *ofo?(°-l)* • Ni *ʔóφo (-s)* • PCh **ʔóhwo?(°-s)*

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêlé, Chorote and Wichí), whose PM age is thus questionable.

- (467) PM **[j]âfti(°)t* ‘to spin’ > Mk *[j]afti(°)t* • Ni *[j]âftit*
- (468) PM **phánha?* ~ **phánha?(°-j^h)* ‘locust’ > Mk <*e*>*fenhe?(°-j)* • Ni *phanxa (-j)*
- (469) PM **[ʔi]phá(t)s’un* ‘to spit’ > PCh **[ʔi]hwáts’un-APPL* • PW **[ʔi]x^wáts’un*
- (470) PM **phaxi(°)j* ~ **phäxi(°)j* ‘green ameiva’ > Mk *fexij* • Ni *phafij*
- (471) PM **phílâ(°)X₁₂* ‘pocote (*Solanum sp.*)’ > PCh **hwilâh* • PW **x^wilâχ*
- (472) PM **-phítan* ‘to dream’ > PCh **[ʔi]hwíhlan* • PW **[t]x^wítan*
- (473) PM **-phítâ(°)k* ‘dream’ > PCh **-hwíhlek* • PW **-x^wítēq*
- (474) PM **phinâk*, **phinhá-j^h* ‘tobacco’ > Mk *finak*, *finha-j* • Ni *phinâk*, *phinxâ-j*
- (475) PM **-φom* ‘to throw, to push’ > PCh **[ʔi]hwóm-ah* • PW **[t]x^wom*

- (476) PM *silóʔtáʔV[?] ~ *siwóʔtáʔe ‘Caatinga puffbird’ > PCh *silóʔtáʔwV? • PW *siwótáx^we
- (477) PM *stáʔe(?) ‘Chaco chachalaca’ > PCh *ʔstáʔwe? • PW *ʔistáx^we
- (478) PM *waʔ ~ *wáʔ ‘to be tired, to die’ > Mk [ji]wef • Ni βaʔ
- (479) PM *ʔ[n]áʔé(?)t ~ *ʔ[n]áʔá(?)t ‘to be ashamed’ > PCh *ʔ[n]áʔwét • PW *ʔ[n]áx^wét ~ *ʔ[n]áx^wél^h
- (480) PM *ʔáʔteʔl ‘orphan’ > Mk aftiʔl • Ni ʔáʔteʔk

2.1.8 PM *t

PM *t is preserved as t in all daughter languages except Chorote, where it unpacks to PCh *hl in onsets (its allophone in codas is represented as PCh *t in this book, with the realizations in the contemporary varieties including [l] alongside [t]).

- (481) PM *[j]ápʔä(?)t ~ *[j]áʔä(?)t ‘to burn’ > Ni [j]apʔat • PCh *[j]ápʔet • PW *[j]ápʔet
- (482) PM *(-)ʔeʔek ~ *éte- ~ *eʔé- ‘mortar’ > Mk (-)ʔitik • Ni -ʔeʔetf • PCh *(-)hwVhlek • PW *x^wéteq
- (483) PM *-jáʔ ‘breath’ > Ni -jat • PCh *-jáʔ • PW *-jáʔ
- (484) PM *kéʔxa-juʔk, *kéʔxa-jku-j^h ‘red quebracho’ > Mk kete-jku- • Ni tʔeʔxa-juk, tʔeʔxa-ku-j • PCh *kéhla-juk / *kéhla-jku- • PW *kʔéʔ-juk^w, *kʔéʔ-kʔu-j^h
- (485) PM *[ji]kúʔt ‘to answer’ > Mk [j]<e>kuʔt • Ni [ji]kuʔt • PCh *[ʔi]kúhl-APPL • PW *[ni]kʔúʔt
- (486) PM *(-)lká(?)t ‘nasal mucus, cold’ > Mk -leke(?)t • PCh *kéʔ • PW *kʔéʔ-taχ, *kʔéʔ-ta-s
- (487) PM *taʔ ‘this.F (within one’s hands’ reach)’ > Ni taʔ • PCh *hlaʔa
- (488) PM *(-)taʔ, *(-)taʔ-ts ‘louse’ > Mk <ij>teʔ (-ts) • Ni -taʔ (-s) • PCh *-hláʔ (*-s) • PW *taʔ
- (489) PM *[ji]táʔm ‘to defecate’ > Mk <i>taʔm • Ni [ji]táʔm • PCh *[ʔi]hláʔm • PW *[t]<a>táʔm
- (490) PM *[ji]tán ‘to light fire’ > Mk [ni]tan-APPL • Ni [ji]tán • PCh *[ʔi]hlán-APPL • PW *[ʔi]tán-APPL
- (491) PM *teʔ ‘white snail’ > Ni teʔ • PW *teʔ

2 Consonants

- (492) PM *(-)lé(?)t ‘firewood’ > Mk *lit<u?>* • PCh *-<?a>hlét ~ *-<?á>hlét • PW *-<?é>hlét
- (493) PM *-tíʔk ~ *-tíʔk, *-tí-jʰ ‘thread’ > Ni -tíʔf, -tí-j<is> • PCh *-hlík, *-hlí-jʰ
- (494) PM *-túʔk, *-tú-jʰ ‘yica bag, load’ > Mk -túʔk, -tú-j • Ni -túʔk • PCh *-hlúk, *-hlúj-... • PW *-túkʷ, *-tú-j<is>
- (495) PM *túmʔa ‘day’ > Ni *túmʔa* • PCh *hlúmaʔ
- (496) PM *tútsX₂₃a(?) (*-jek) ‘girl’ > Ni *tutsxa (-jetf)* • PCh *hlúsaʔ (*-jek) • PW *tútsha
- (497) PM *nátu(h), *nátu-ts ‘day, world’ > Mk *netu (-ts)* • Ni *natu (-s)* • PCh *náhl<ekis> ~ *náhl<ekes> ‘midday’
- (498) PM *péla(?)j, *pétaj-its ‘rain’ > Mk *pítej (-its)* • PCh *péhlajʔ • PW *pétajʰ, *pétaj-is
- (499) PM *táʔt ‘to sprout’ > Mk *taʔt* • Ni *táʔt* • PCh *tát • PW *tát
- (500) PM *titáʔx ‘to carry on one’s shoulders’ > Mk *tiʔoʔx / -tiʔoʔx* • Ni *titáʔx* • PCh *[ʔi]tihlâh • PW *titâx
- (501) PM *-tiʔt ‘to spin, to sew’ > Mk [ji]tit • Ni *tiʔt* • PCh *[j]<á>tit
- (502) PM *[j]útâ(?)x ‘to be tired’ > Mk -uʔa(?)x ‘breath’ • Ni [j]uʔâx • PCh *[j]úhlâh
- (503) PM *wánXâʔâx, *wánXâʔâ-ts ‘rhea’ > Mk *waʔax* • Ni *βânXâʔâx, βânXâʔâ-s* • PCh *wánhlâh, *wánhlâ-s • PW *wáʔnâx, *wáʔnâ-s
- (504) PM *-ʔwʔiʔ ~ *-ʔwʔiʔ, *-ʔwʔi-ts ‘rib’ > Mk -ʔweʔiʔ (-ts) • Ni -ʔβʔi / -βʔiʔ (-s) • PCh *-hlí<s>
- (505) PM *-ʔwVʔt ~ *-ʔwVʔt ‘to climb’ > Mk *weʔt* • Ni *βáʔt* • PCh *[ʔi]ʔwúʔt • PW *[t]ʔwúʔt ~ *[t]ʔwúʔt
- (506) PM *[t]ʔáʔt ‘to ask’ > Ni [t]ʔaʔt • PCh *[t]ʔát • PW *[t]ʔát
- (507) PM *ʔáʔu(?) ‘iguana’ > Ni *ʔáʔu (-s)* • PCh *ʔáhlʔ (*-s) • PW *ʔáʔu
- (508) PM *-ʔeʔt ~ *-ʔéʔt ‘other’ > Ni -ʔeʔt • PW *-ʔeʔt ~ *-ʔéʔt
- (509) PM *-ʔúʔt ‘to urinate’ > Mk *uʔ / -ʔuʔ* • Ni [j]uʔ / -ʔuʔ • PCh *[t]ʔúʔt • PW *[t]ʔúʔt
- (510) PM *-ʔúʔu(?) ‘urine’ > Ni -ʔúʔu • PCh *-ʔúhlʔ • PW *-t-ʔúʔu
- (511) PM *ʔuwáʔe(?)x ~ *Cʔuwáʔe(?)x ‘puma’ > Ni <xum>pʔuʔatex • PCh *kʔuwáhlâh • PW *ʔowáʔax ~ *Cʔowáʔax

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (512) PM *[n]aʔt ~ *[n]äʔt ‘to burn’ > Mk [n]eʔt-xuʔ • Ni [ji]<n>-aʔt
- (513) PM *[j]ãfti(ʔ)t ‘to spin’ > Mk [j]afti(ʔ)t • Ni [j]ãftit
- (514) PM *-fítan ‘to dream’ > PCh *[ʔi]hwíhlan • PW *[t]xwítan
- (515) PM *-fítã(ʔ)k ‘dream’ > PCh *-hwíhlek • PW *-xwítęq
- (516) PM *[ji]kálaʔt ‘to fry’ > Mk [j]<a>kaleʔt • Ni [ji]kãklãt / -kãklãʔt
- (517) PM *-tíʔwteʔ ‘heart’ > Mk -titiʔ • Ni -tiʔbte
- (518) PM *tsémłã(ʔ)k ~ *tsámłã(ʔ)k ‘silk floss tree’ > PCh *sémhlãk • PW *tsémłãk^w
- (519) PM *wéʔt=aʔ ‘one’ > Mk <e>wiʔt-eʔ • Ni béʔt<a> / -ʔbéʔt<a>
- (520) PM *-ʔatã(ʔ) ‘fat’ > PCh *-ʔahlãʔ • PW *-t-ʔatã(ʔ)
- (521) PM *ʔ[n]ãfê(ʔ)t ~ *ʔ[n]ãfã(ʔ)t ‘to be ashamed’ > PCh *ʔ[n]ãhwét • PW *ʔ[n]ãxwét[?] ~ *ʔ[n]ãxwél^h

2.1.9 PM *s

PM *s is a stable phoneme: it is preserved in all daughter languages as s. Note the irregular loss of PM *s in Wichí in (522) and in Nivaçle in (548)–(549).

- (522) PM *-ániʔs ‘stinger’ > Mk 3 t-aniʔs • Ni 3 t-ãnis • PCh 3 *hl-ãnis • PW (?) 3 *t-ãʔni
- (523) PM *-ãʔs ‘son’ > Mk -aʔs • Ni -ãʔs • PCh *-ãʔs • PW *-t-ãʔs
- (524) PM *-ãseʔ ‘daughter’ > Mk -asiʔ • Ni -ãse • PCh *-ãseʔ • PW *-t-ãse
- (525) PM *fis-kat ‘palm grove (*Copernicia alba*)’ > Mk fis-ket • Ni fis-tfat
- (526) PM *fiʔs ‘leech’ > Ni fiʔs • PW *xʔis
- (527) PM *jijuʔs ~ *jijúʔs ‘wax’ > Ni jijuʔs • PCh *ʔijús
- (528) PM *[j/ʔ]is{a/ã/e}ʔχ ~ *[j/ʔ]is{á/ã/é}ʔχ ‘sand’ > Mk isaʔχ • PCh *ʔisáh ~ *ʔisáh
- (529) PM *-kãʔs, *-kãs-él ‘tail’ > Ni -kãʔs, -kãs-ek • PCh *-kãʔs • PW *-kʔãs, *-kʔãs-él^h

2 Consonants

- (530) PM *[ji]k'ása'χ ~ *[ji]k'áse'χ 'to divide' > Mk [j]<a>k'esa'χ • PCh *[ʔi]k'ésah • PW *[hi]k'ésaχ
- (531) PM *-pás(-e't) 'lip' > Mk -pas • Ni -pás<e't> • PCh *-pás<at> ~ *-pás<ât> • PW *-pás<et>
- (532) PM *-pxúse? (*-j^h) 'beard' > Mk -<a>pxusi? (-j) • Ni -páse (-j) • PCh *-púse? (*-j^h) • PW *-páse (*-j^h)
- (533) PM *sát'a(?) (t)s 'parakeet' > Ni sat'as • PCh *sát'as • PW *sát'as
- (534) PM *-sáq'ál^h, *-sáq'ál-its 'soul, spirit' > Mk (?) -si'nq'al (-its) • Ni -sák'ák<it> • PCh *-sáq'ál^h, *-sáq'ál-is
- (535) PM *-sá't 'vein' > Mk -<ʔa>sa't • Ni -sá't • PCh *-sát- • PW *-sát
- (536) PM *[ji]selán 'to spank' > Mk [j]<eq>silan 'to spank' • PCh *[ʔi]selán 'to store'; *[ʔi]selán-eh 'to prepare'
- (537) PM *(-)skä't 'mesh' > Ni -stfa't • PW *sik'let
- (538) PM *sténi(?) 'white quebracho' > Mk sitin-u'k • PCh *ʔsténi? • PW *ʔisté'nih
- (539) PM *stwú'n, *stwún-its 'king vulture' > Ni staβu'n, staβun-is • PCh *ʔstúu'n, *ʔstúun-is • PW *ʔistíwin
- (540) PM *-su(?), *-sú-l 'vagina' > Mk -su?(-l) • Ni -su?(-k) • PCh *-<í>su?(*-l) • PW *-su(?)
- (541) PM *s'wúla'χ, *s'wúla-ts 'anteater' > Ni s'βuklax, sβukla-s • PCh *s'ʔúlah, *s'ʔúla-s • PW *súlaχ
- (542) PM *[ji]s'wun ~ *[ji]s'wún 'to like, to love' > Mk [ji]suʔun • Ni [ji]s'βun • PCh *[ʔi]s'ʔún
- (543) PM *tis 'to invite, to pay' > Mk tis-ix / -tis-ix • Ni tis • PCh *[ʔi]tis • PW *tis
- (544) PM *-t(á)ko-se? (*-j^h) 'eyebrow' > Mk -tko-si? (*-j) • PCh *-tóko-se? (*-j^h) • PW *-ták'o-se (*-j^h)
- (545) PM *tós (*-its) 'snake' > Ni tos (-is) • PCh *tós (*-is)
- (546) PM *túsu(?) (t)s 'lesser yellowlegs' > Ni tusus • PCh *túsus • PW *túsus
- (547) PM *t'isá? ~ t'isá? (*-l) 'cream-backed woodpecker (*Campephilus leucopogon*)' > Mk t'isa?(-l) • Ni t'isá?(-k) • PCh *t'isá?(-l)
- (548) PM *wósitseχ 'black algarrobo fruit (*Prosopis nigra*)' > Mk ositsaχ • Ni βaitsex • PW *wósotsaχ

- (549) PM *wósits-uʔk ‘black algarrobo tree (*Prosopis nigra*)’ > Mk osits-uʔk • Ni *βaitse-juk* • PCh *wósis-uk • PW *wósots-uk^w
- (550) PM *ʔwósá(ʔ)q ~ *ʔwósá(ʔ)k ‘butterfly’ > Ni *βosák* • PCh *ʔwósák
- (551) PM *[t]ʔás ‘to step’ > Ni [t]ʔás • PCh *[t]ʔás • PW *[t]ʔás-APPL
- (552) PM *ʔis ‘good’ > Ni *ʔis* • PCh *ʔis • PW *ʔis
- (553) PM *ʔáskʔála(ʔ)χ ‘widower’ > Ni *ʔástʔaklax* • PCh *ʔáskʔélah
- (554) PM *-ʔásχaʔn, *-ʔásχán-its ‘meat’ > Mk -ʔeseʔn, -ʔesen-its • Ni -(ʔa)sxaʔn, -(ʔa)sxan-is • PCh *-ʔisáʔn, *-ʔisán-is • PW *-t-ʔisaʔn, *-t-ʔisán-is

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (555) PM *[t]qási(ʔ)t / -qási(ʔ)t ‘to stand’ > PCh *[tʔ]qásit • PW *[t]qásit; IMP *qásit
- (556) PM *-saʔx ~ *-sáʔx ‘leaf’ > Mk 3 *te-seʔx* • Ni -saʔf
- (557) PM *sálá(ʔ)l, *sálál-its ‘middle-sized cicada’ > Mk *sala(ʔ)l*, *salal-its* • Ni *sákl<ákl>ák* (-is)
- (558) PM *sijá(ʔ)χ, *sijáχ-is ‘fish sp.’ > Mk *sija(ʔ)χ*, *sijax-its* • Ni *sijáx* (-is)
- (559) PM *silóʔtáφV[?] ~ *siwóʔtáφe ‘Caatinga puffbird’ > PCh *silóʔtáhWV? • PW *siwótáx^we
- (560) PM *spú(ʔ)p ‘dove’ > PCh *sʔpúp • PW *spúp
- (561) PM *stá-ʔq ‘toothpick cactus (*Stetsonia coryne*)’ > PCh *ʔstá-k • PW *ʔistá-q
- (562) PM *stáφe(ʔ) ‘Chaco chachalaca’ > PCh *ʔstáhwe? • PW *ʔistáx^we
- (563) PM *(ʔ)wáʔs ‘sky’ > Mk *waʔs* • Ni *βáʔs*
- (564) PM *(ʔ)wáseʔ ‘cloud’ > Mk *wasiʔ* • Ni *βáseʔ*
- (565) PM *wósakʔV(ʔ)t ‘red-crested cardinal’ > PCh *wósʔkʔat • PW *wósakʔʔit[?] ~ *wósakʔʔut
- (566) PM *-X₁₃úsek ~ *-X₁₃úsäk ‘temperance’ > PCh *-húsek • PW *-húseq
- (567) PM *ʔatʔe(ʔ)(t)s ~ *ʔatʔä(ʔ)(t)s ‘aloja drink’ > PCh *ʔatʔés • PW *hatʔés

2 Consonants

2.1.10 PM *x

PM *x is preserved as a velar fricative in Maká, whereas in other languages it has suffered a split or a merger. In Nivaçle, it palatalizes to *f* before or after non-back vowels (PM *i, *e, *ä, *a > Ni i, e, a), except when preceded or followed by a back vowel, possibly with an intervening [+grave] consonant (see §7.1.1.3 for more details). In Chorote, it yields PCh *h except when it follows the vowel *u, in which case it is reflected as PCh */hw/. In Wichí, PM *x always changes to PW *χ in the onset position, whereas in codas it is reflected as PW *χ (except after the vowel *u, in which case it yields PW *x^w). The following examples show the development of PM *x in the onset position, where it is reflected as Mk x, Ni x or f, PCh *h, PW *h. The Chorote and Wichí reflexes in (578)–(580) may turn out to be regular if one recognizes the regularity of deletion of *x in word-initial unaccented syllables.

- (568) PM **-á(-j^h)-xi?* (*-l) ‘mouth’ > Mk *-e<xi?>* (-l) • Ni *-a<fi>* (-k) • PCh (?) **-á<aj?>* • PW **-ʔ-áj-hi* (*-l^h)
- (569) PM **jixá(?)* ~ **jixá(?)* ‘to be true’ > Mk *ixa* • Ni *jixá?* • PCh **?ihá<wet>*
- (570) PM **-k’áxe?* (*-l) ‘arrow’ > Mk *-qaxi?* (-l) • Ni *-k’áxe* • PCh **-k’áhe?* (*-l) • PW **-k’áhe* (*-l^h)
- (571) PM **-xa*, **-xá-l* ‘price’ > Ni *-fa?* (-k) • PW **-ha*, *-há-l^h*
- (572) PM *(*X₁₃on*-)*xa*^χ, *(*X₁₃on*-)*xáh-aj^h* ‘night’ > Mk <*na*>*xa*^χ • Ni <*xon*>*fa*^x, <*xon*>*fa*^x-*aj* • PCh * <*?a*>*h<n>áh* ~ * <*?á*>*h<n>áh* • PW * <*hon*>*a*^χ, * <*hon*>*áh-aj^h*
- (573) PM **-xájk’u(?)* (*-l) ‘egg’ > Ni *-fajk’u* (-k) • PCh 3 **hl-éjk’u?* (*-l) • PW **-ʔ-ík’u* (*-l^h)
- (574) PM **-xáte^χk*, **-xáthe-j^h* ‘head’ > Ni *-fate^χtʃ*, *-fatxe-s* • PCh **-hétek*, **-héhte-j^h* • PW **-ʔ-éteq*, **-ʔ-éthe-j^h*
- (575) PM **xéla^χ-ju^χk* ‘tree sp.’ > Ni *seklá-juk* • PCh **hél-ek* • PW **hél-ek^w*
- (576) PM **-xáⁿ(e?)* ‘verbal plural (suffix)’ > Ni *-faⁿne?* / *-xaⁿne?* • PCh **-heⁿ(e?)* • PW **-heⁿ*
- (577) PM **-xí^h* ‘recipient’ > Mk *-xij* • Ni *-fij* / *-xij* • PW **-híh*
- (578) PM **xunxátaχ* ‘tusca fruit’ > Mk *xunxetaχ* • Ni *xunfatax* • PCh **?ihnátah* • PW **xⁿhátah*
- (579) PM **xunxáta-(ju)^χk* ‘tusca tree’ > Mk *xunxete-^χk* • Ni *xunfata-juk* • PCh **?ihnátah-k* • PW **xⁿhátah-q*

- (580) PM **xunxáta-kat* ‘tusca grove’ > Mk *xunxete-ket* • Ni *xunfata-tfat* • PCh **?ihnáta-kat*
- (581) PM **xu(?)p* ‘grass’ > Mk *xup<’el>* • PCh **húp* • PW **hup*
- (582) PM **?áxa?* ‘stork’ > Mk *exe?* ‘maguari stock’ • PCh **?áha?* ‘jabiru’

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivačle, Chorote and Wichí), whose PM age is thus questionable.

- (583) PM **φaxi(?)j* ~ **φäxi(?)j* ‘green ameiva’ > Mk *fexij* • Ni *φafij*
- (584) PM **ji?ixátaχ*, **ji?ixáta-ts* ‘ocelot’ > Mk *i?ixataχ*, *i?ixate-ts* • Ni *jixátax*, *jixáta-s*
- (585) PM **-xéle?* ‘dirt’ > Mk *-xili?* • Ni *-fekle*
- (586) PM **xoxaw-u[?]k* ~ **xoxi-ju[?]k*, **-ku-j* ‘palo cruz (*Tabebuia nodosa*)’ > Mk *xoxew-u[?]k*, *xoxew-kw-i* • Ni *xoxi-juk*, *xoxi-ku-j*

The following examples show the development of PM **x* in the coda position, where it is reflected as Mk *x*; Ni *x* or *f*; PCh **h*, but **hw* after **u* (603); PW **χ*, but **x^w* after **u*, as in (591), (603). Note that in (596) the suffixless form has not been preserved in Chorote and Wichí, and the velar fricative evolves there as detailed in §2.4.

- (587) PM **[j]ékφa[?]x* ‘to bite’ > Mk *[j]ikfe[?]x* • PCh **[j]ókwah* • PW **[j]ók^waχ*
- (588) PM **[ji]φá[?]x* ‘to cut down’ > Mk *fex-inet-ki?* ‘ax’ • Ni *[ji]φa[?]f* • PCh **[?i]hwáh-APPL* • PW **[?i]x^wáχ*
- (589) PM **-φáji[?]x* ‘right’ > Mk *-feji[?]x* ‘left’ • Ni *-φaji[?]f* • PCh **-hwíjah*
- (590) PM **φä[?]x* ~ **φá[?]x* ‘field’ > Ni *φa[?]f* • PCh **hwéh*
- (591) PM **-φχúx*, **-φχú-ts* ‘finger’ > Mk *-fux* • Ni *-φxux*, *-φxu-s* ‘toe’ • PCh **-hwu-ké?* • PW **-x^wúx^w*, **-x^wú-s*
- (592) PM **-k’ínix*, **-k’ínxi-ts* ‘younger brother’ > Mk *-k’ínix* • Ni *-tfinif* • PCh **-k’ínih*, **-k’íhni-s* • PW **-k^j’ínix*, **-k^j’ínhi-s*
- (593) PM **[ji]lé[?]x* ‘to wash’ > Mk *[ji]lix-u?* ‘to clean’ • Ni *[ji]klé[?]f* • PCh **[?i]léh* • PW **[?i]léχ*
- (594) PM **(-)lútse[?]x*, **(-)lútsxe-ts* ‘bow’ > Ni *klútsef* / *-klútse[?]f*, *(-)klútsfe-s* • PCh **(-)lúseh* (*-es) • PW **(-)lútseχ*, **(-)lútse-s*

2 Consonants

- (595) PM *-^ʔli^ʔx, *-^ʔlix-áj^h ‘language, word’ > Mk -^ʔlix<e^ʔ> • Ni -^ʔkli^ʔf, -^ʔkli^ʔf-aj • PCh *-^ʔlih, *-^ʔlih-áj^h
- (596) PM *-na^ʔx ~ *-ná^ʔx / *-nxa- ~ *-nxá- ‘nose’ > Mk -ne^ʔx / -nxe- • Ni -na^ʔf, -nfa-s • PCh *-hná<tVwoh> • PW *-nh<us>
- (597) PM *-nji^ʔx ‘smell’ > Mk -nji^ʔx • Ni -ni^ʔf • PCh *-níh • PW *-niχ
- (598) PM *(-)^ʔnáji^ʔx, *(-)^ʔnájx-aj^h ‘path’ > Ni náji^ʔf, (-)^ʔnájf-aj / -^ʔnáji^ʔf • PCh *(-)^ʔnájih, *(-)^ʔnájh-aj^h • PW *(-)^ʔnájiχ, *(-)^ʔnájh-aj^h
- (599) PM *táχan ‘to thunder’ > Mk texen • Ni tafxen • PW *t’áχan
- (600) PM *-táwä^ʔx, *-táwxä-ts ‘(abdominal) cavity’ > Mk -tawe^ʔx, -tawxe-ts • Ni -táβa^ʔf, -táβxa-s • PCh *-tóweh • PW *-tóweχ
- (601) PM *tiłá^ʔx ‘to carry on one’s shoulders’ > Mk tiło^ʔx / -tiło^ʔx • Ni tiłá^ʔx • PCh *[ʔi]tíhlâh • PW *tiłáχ
- (602) PM *ti^ʔx ‘to dig’ > Mk ti(^ʔ)x-APPL / -ti(^ʔ)x-APPL • Ni ti^ʔf • PCh *[ʔi]tíh-ij? • PW *tiχ
- (603) PM *tux ‘to eat (tr.)’ > Mk tux / -tux • Ni tux • PCh *[ʔi]túM • PW *tux^w
- (604) PM *-t’ox ~ *-t’óx ‘aunt’ > Ni -t’ox • PCh *-<i>t’óh • PW *-<wi>t’ox
- (605) PM *-wá^ʔx, *-w(ä)x-áj^h ‘burrow; anus’ > Ni -βa^ʔf, -βaf-aj^h • PCh *-wéh • PW *-wéχ, -wh-áj^h
- (606) PM *-łâx (*-its) ‘skin, bark’ > Mk -łax (-its) • Ni -łâx (-is) • PCh *-łâh, *-łâh-és • PW *-t-’âχ, *-t-’âh-és

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêlé, Chorote and Wichí), whose PM age is thus questionable.

- (607) PM *-ata(^ʔ)x ~ *-ä- ‘food’ > Mk -ete(^ʔ)x • Ni -ataf
- (608) PM *kowä^ʔx / *kówä^ʔx ‘hole’ > PCh *kowéh / *kóweh • PW *k’owex / *k’óweχ
- (609) PM *-sa^ʔx ~ *-sä^ʔx ‘leaf’ > Mk 3 łe-se^ʔx • Ni -sa^ʔf
- (610) PM *[ji]t’ex ‘to say’ > Mk [ji]t’ix • Ni [ji]t’ef
- (611) PM *^ʔwá(^ʔ)x, *^ʔwáx-aj^h ‘stagnant water’ > PCh *hl-<a>^ʔwáh (*-aj^h) • PW *^ʔwáχ, *^ʔwáh-aj^h

2.1.11 PM *χ

PM *χ occurs predominantly in the coda position, though it can resyllabify as an onset if a *χ-final stem takes a vowel-initial suffix, as in (626), (631), (632); it also occurs in consonant clusters. It is consistently preserved as a uvular fricative only in Maká, where it still contrasts with the velar fricative *x*. In other languages, its reflexes are Ni *x*, PCh **h* (but **hw* in onsets after a rounded vowel), and PW **h* (in onsets), *χ (in codas), or **x*^w (in onsets or codas after a rounded vowel). Note that PW *χ does not contrast with a velar fricative, unlike in Maká.

- (612) PM *[j]áte(°)χ ‘to be fat’ > Ni [j]átex • PCh *[j]átah • PW *[j]átax
- (613) PM **n-â*χ ‘to end up’ > Mk *n-a*χ • Ni *n-â*x • PCh **<n>óhw-APPL* • PW **<n>ox^w*
- (614) PM **phátsu*(°)χ, **phátshu-ts* ‘centipede’ > Ni *phatsux*, *phatsxu-s* • PCh *(*h*)*wásuh*, *(*h*)*wásu-s* • PW **x^wátsux^w*
- (615) PM **phinä*(°)χ ‘crab’ > Ni *phinax* • PCh **hwíneh*
- (616) PM **phkéna*(°)χ ‘north wind, north’ > Ni *phfenax* • PCh **hw³kénah*
- (617) PM **phtsána*(°)χ ‘suncho (*Baccharis* sp.)’ > Ni *phtsanax* • PCh **sánah* • PW **x^witsána*χ
- (618) PM *[j/?]is{a/â/e}°χ ~ *[j/?]is{á/â/é}°χ ‘sand’ > Mk *isa*°χ • PCh **ʔisáh* ~ **ʔisáh*
- (619) PM *[ji]ka°χ ~ *[ji]ká°χ ‘to take away’ > Mk [j]<e>ka°χ • Ni [ji]tfa°x • PW *[ji]k^jâχ
- (620) PM *[ji]k’ása°χ ~ *[ji]k’áse°χ ‘to divide’ > Mk [j]<a>k’esa°χ • PCh **[ʔi]k’ésah* • PW **[hi]k^j’ésax*
- (621) PM **k’ú(t)sta*(°)χ, **k’ú(t)sta-ts* ‘barn owl’ > Ni (?) *k’ustax*, *k’usta-s* ‘mockingbird’ • PCh **k’ústah*, **k’ústa-s* • PW **k^j’ústax*
- (622) PM *(-)k’útsa°χ, *(-)k’útsha-ts ‘old’ > Mk *k’utsa*°χ, *k’utsh-ts* • Ni *k’utsa*°x, *k’utsxa-s* • PCh **-k’úsah*, **-k’úsa-s* • PW **-k^j’útsax*
- (623) PM *[ʔa]lôχ ‘many.sg’ > Ni <ʔa>k^lôx • PCh *[ʔa]’lôh
- (624) PM **pátse*(°)χ ‘fast, quick’ > Ni *pátsex* • PCh *(-)pásah
- (625) PM **páttséχ* ‘jabiru’ > Ni *pátsex* • PCh **pátsháh* • PW **pátsháχ*
- (626) PM **pätóχ* ‘to be deep’ > Ni [ʔa]patox • PCh **-pítohw<ijʔ>* • PW **pítóx^w*
- (627) PM **pitéχ*, **pité-ts* ‘long’ > Ni *pitex*, *pite-s* • PW **pítáχ*, **pité-s*

2 Consonants

- (628) PM *s^ʷwúla^ʷχ, *s^ʷwúla-ts ‘anteater’ > Ni s^ʷbuκlax, s^ʷbuκlā-s • PCh *s^ʷ?úlah, *s^ʷ?úla-s • PW *súlaχ
- (629) PM *-taχ, *-ta-ts ‘pseudo-’ > Mk -taχ, -te-ts • Ni -tax, -ta-s • PCh *-tah, *-ta-s • PW *-taχ, *-ta-s
- (630) PM *tijá^ʷχ ‘to shoot, to throw’ > Mk tija^ʷχ / -tija^ʷχ • Ni tijá^ʷx • PCh *[ʔi]tijáh • PW *tijáχ
- (631) PM *tóχ-APPL, *tó-ts-APPL ‘far’ > Mk -toχ-ij, to-ts-ij • Ni tox-APPL • PCh *tóh(w)-APPL, *tó-ts-APPL • PW *tóx^w-ej^h
- (632) PM *tséχ-APPL ‘full (river)’ > Ni tsex-APPL • PCh *-sáh • PW *tsáχ-APPL
- (633) PM *tsóφα-taχ ‘fruit of a shrub (*Lycium americanum*)’ > Mk tsofe-taχ • Ni tsoφ-tax
- (634) PM *[j]útlá^(ʷ)χ ‘to be tired’ > Mk -u^ʷla^(ʷ)χ ‘breath’ • Ni [j]u^ʷlāx • PCh *[j]úhlāh
- (635) PM *wV^ʷχ, *wV^ʷ-ts ‘large, fat’ > Ni -βá^ʷx • PCh *wúh, *wú-s • PW *wúx^w, *wú-s
- (636) PM *wátá^(ʷ)χ ‘palo flojo fruit’ > Ni βátāx • PW *wátōx^w
- (637) PM *wósitseχ ‘black algarrobo fruit (*Prosopis nigra*)’ > Mk ositsaχ • Ni baitsex • PW *wósotsaχ
- (638) PM *^ʷwánXátāχ, *^ʷwánXátā-ts ‘rhea’ > Mk waataχ • Ni βānxátāx, βānxátā-s • PCh *^ʷwánhlāh, *^ʷwánhlā-s • PW *wá^ʷn^ʷlāχ, *wá^ʷn^ʷlā-s
- (639) PM *(X₁₃on-)xa^ʷχ, *(X₁₃on-)xáh-aj^h ‘night’ > Mk <na>xa^ʷχ • Ni <xon>fa^ʷx, <xon>fa^ʷx-aj • PCh *<ʔa>h<n>áh ~ *<ʔá>h<n>áh • PW *<hon>aχ, *<hon>áh-aj^h
- (640) PM *xunxátaχ ‘tusca fruit’ > Mk xunxetaχ • Ni xunfatax • PCh *ʔihnátah • PW *^xnhátaχ
- (641) PM *(ʔa)X₁₃útsa^(ʷ)χ, *(ʔa)X₁₃útsa-ts ‘crested caracara’ > Ni xutsax, xutsxa-s • PCh *(ʔa)húsah, *(ʔa)húsa-s • PW *ʔahútsaχ, *ʔahútsa-s
- (642) PM *ʔáp^ʷa^(ʷ)χ ~ *ʔáφ^ʷa^(ʷ)χ ‘jararaca’ > Ni ʔap^ʷax • PCh *ʔáp^ʷah
- (643) PM *ʔatu^ʷχ ~ *ʔatú^ʷχ ‘snake sp.’ > Ni ʔatu^ʷx • PCh *ʔatúh
- (644) PM *ʔáwu(C)tseχ ‘peccary’ > Ni ʔaβuktsex ~ ʔaβoktsex • PCh *ʔáwusah • PW *ʔáwutsaχ
- (645) PM *ʔaX₁₃ájē^(ʷ)χ ‘mistol fruit’ > Ni ʔaxájex • PCh *ʔahájah • PW *ʔahájajχ
- (646) PM *ʔá^ʷjteχ, *ʔá^ʷjte-ts ‘to hurt’ > Mk aʔtaχ, aʔti-ts • Ni ʔá^ʷjtex ~ ʔá^ʷβtex • PCh *ʔájʔtah-APPL, *-ʔájʔte-s-APPL • PW *ʔájtaχ, *ʔájte-s

- (647) PM *ʔáʔlá-taχ, *ʔáʔlá-ta-s ‘Argentine boa’ > Ni ʔáʔklâ-tax, ʔáʔklâ-ta-s
 • PCh *ʔáʔlá<ta> ~ *ʔáʔlá<ta>, *ʔáʔlá<ta>-s ~ *ʔáʔlá<ta>-s • PW
 (?) *lá<ta>χ
- (648) PM *ʔál(V)tse(ʔ)χ, *ʔál(V)tse-ts ‘chágua (*Deinacanthon urbanianum*)’ > Ni
 ʔáktsex, ʔáktse-s • PCh *ʔálʔsah, *ʔálʔse-s • PW *ʔáletsaχ
- (649) PM *ʔánhajex ‘wild bean (*Capparis retusa*)’ > Mk anhejaχ • Ni ʔánxajex •
 PCh *ʔóhnajah • PW *ʔánhjaχ
- (650) PM *ʔáskʔála(ʔ)χ ‘widower’ > Ni ʔástʔaklâx • PCh *ʔáskʔélah
- (651) PM *ʔítá(ʔ)χ, *ʔítá-ts ‘fire’ > Ni ʔitâx, ʔitâ-s • PCh *ʔítâh, *ʔítâ-s • PW *ʔítâχ,
 *ʔítâ-s
- (652) PM *ʔóna(ʔ)χ ‘my brother’ > Ni ʔonax • PCh *ʔónah
- (653) PM *ʔuwáte(ʔ)χ ~[?] *Cʔuwáte(ʔ)χ ‘puma’ > Ni <xum>pʔuβatex • PCh
 *kʔuwáhlah • PW *ʔowátax ~[?] *Cʔowátax

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaê, Chorote and Wichí), whose PM age is thus questionable.

- (654) PM *ʔiʔixâtaχ, *ʔiʔixâta-ts ‘ocelot’ > Mk iʔixataχ, iʔixate-ts • Ni jixâtax,
 jixâta-s
- (655) PM *[wa]kumaʔχ ‘to run’ > Mk [we]kumaʔχ • Ni [βa]kumaʔx
- (656) PM *ʔijâ(ʔ)χ, *ʔijâχ-is ‘fish sp.’ > Mk sija(ʔ)χ, sijaχ-its • Ni sijâx (-is)
- (657) PM *(-)tútse(ʔ)χ ‘smoke’ > PCh *(-)túsah • PW *(-)tútsaχ
- (658) PM *tuχ-APPL ‘to burn (intr.)’ > Mk tuχ-xem, tuχ-eʔ • Ni tux-aʔm, tux-ej
- (659) PM *(ʔ)wánaʔχ, *(ʔ)wánha-ts ‘piranha’ > Mk wanaʔχ, wanhe-ts • Ni βânax,
 βânxa-s
- (660) PM *ʔâthajex ~ *ʔâthäjex ‘molle fruit’ > Mk athejaχ • Ni ʔâtajex

As we will see in §5.2.2, in some cases stem-final PM *χ may be deleted or alternate with PM *h.

2.1.12 PM *h

PM *h does not occur very frequently in onsets, and it contrasts only marginally with PM *χ in that position (recall that PM *χ typically occurs in codas except at

2 Consonants

root–suffix boundaries). In onsets, it is reflected as *h* in all daughter languages except Nivačle, where *x* is found (Nivačle has no *h* in its inventory). Word-initially it is apparently reflected as zero in Chorote and Wichí (662), but in the distal [-visible] [+firsthand] demonstrative it is exceptionally preserved in Chorote as PCh **h* (661).

- (661) PM **h*- ‘that (outside the speaker’s sight)’ > Mk *h*- • Ni *xa?* • PCh **há?* ~ **há?*
- (662) PM **ha*- ‘1SG.ACT’ > Mk *he-* / *ha-* / *ho-* • Ni *xa-* • PCh **ʔa-* • PW **ʔa-*
- (663) PM *(-)*háqke?* ‘well’ > Mk *haqqi?* ‘river’ • Ni *-xáke* ‘dry well’ • PCh **-hááke?* ‘artificial well’
- (664) PM **tsâháq* (*-its) ‘chajá bird’ > Mk *tsahaq* (-its) • PCh **sâháq*, **sâháq-es* ~ **sâháq-is* • PW **tsâháq*

The very same correspondence is observed in an etymology with a limited distribution (Maká and Nivačle), whose PM age is thus questionable.

- (665) PM **him* (*-its) ‘coati’ > Mk *him* (-its) • Ni *xim* (-is)

By contrast, word-finally in codas PM **h* clearly contrasts with PM * χ . It is lost altogether in Maká and Nivačle in that position, but is usually preserved as **h* in Proto-Chorote and Proto-Wichí (in the only example of a monosyllabic root, given in (670), it is reflected as a so-called UNSTABLE ^h in Chorote). Note that all contemporary Chorote and Wichí dialects except Weenhayek have lost word-final **h* in some or all environments, but **h* is clearly reconstructible to Proto-Chorote and Proto-Wichí based on evidence internal to Chorote and Wichí, respectively.

- (666) PM **-pha*, **-pha-ts* ‘companion’ > Mk *-fe* (-ts) • Ni *-pha* (-s) • PCh **-hwah*, **-hwa-s* • PW **-x^wah*, **-x^wa-s*
- (667) PM **-kípha*, **-kípha-ts* ‘neighbor’ > Mk *-kife* (-ts) • Ni *-típha* (-s) • PCh **-kíhwah*, **-kíhwa-s*
- (668) PM **-k’álpha* ‘spouse’ > Ni *-t’akpha* • PCh **-k’élhwah* • PW **-k’íx^wah*
- (669) PM **láp’ih* ~ **láf’ih* ‘snail’ > Ni *klâp’i* • PCh **láp’ih*
- (670) PM **máh* ‘go!’ > Mk *ma* • Ni *mâ* • PCh **máh^h* • PW **máh*
- (671) PM **nú?uh*, **nú?u-ts* ‘dog’ > Ni *nú?u* (-s) • PCh **nú?uh*, **nú?u-s*
- (672) PM **pútâh* ‘tapeti rabbit’ > Ni *puta* • PCh **púteh*

- (673) PM **X*₂₃*wé'lah*, **X*₂₃*wé'la-ts* ‘moon’ > Ni *xibe'la* (-s) • PCh **wé'lah*, **wé'la-s* • PW **xwé'lah*
- (674) PM **ʔánitih* ‘wasp sp.’ > Ni *ʔániti* • PCh **ʔánitih*
- (675) PM **ʔúlʔáh*, **ʔúlʔá-ts* ‘dove’ > Ni *ʔuklʔá* (-s) • PCh **ʔúlʔáh*, **ʔúlʔá-s*
- (676) PM **ʔVláʔah*, **ʔVláʔa-ts* ‘lesser grison’ > Mk *ile* • Ni *ʔakláʔa* (-s) • PCh **ʔeláʔah*, **ʔeláʔa-s* [?] **ʔaláʔah*, **ʔaláʔa-s* • PW **ʔiláʔah*

The very same correspondence is observed in etymologies with a limited distribution (Chorote and Wichí), whose PM age is thus questionable.

- (677) PM **ká'lah*, **ká'la-ts* ‘lizard’ > PCh **ká'lah*, **ká'la-s* • PW **k'á'lah*, **k'á'la-s*
- (678) PM **pá'jih* ‘frog (*Leptodactylus* sp.)’ > PCh **pá'jih* • PW **pá'jih*
- (679) PM **Xmáwoh* ‘fox’ > PCh **máwo-tah* • PW **xmáwoh*

An additional quirk comes from the fact that in Wichí word-final **h* is lost if the onset of the syllable in question is a glottalized stop or affricate (as well as in one unclear exception shown in (683), where the loss of **h* may have something to do with the sequence *-*mʔ*-). In this case only Chorote, of all Mataguan languages, preserves any trace of PM **h*.

- (680) PM **k'ék'eh* ‘monk parakeet’ > Ni *tʃetʃe* • PCh **kék'eh* • PW **k'ék'j'e*
- (681) PM **ts'áts'ih*, **ts'áts'i-l* ‘rufous hornero’ > Mk *ts'its'i* (-l) • Ni *ts'ats'i* (-k) • PCh **sát'ih* • PW **táts'i*
- (682) PM **wóp'ih* ~ **wóφ'ih* [?] **móp'ih* ~ **móφ'ih* ‘white egret’ > PCh **wóp'ih* • PW **móp'i*
- (683) PM **ʔámʔáh*, **ʔámʔá-ts* ‘rat’ > Ni *ʔamʔá* (-s) • PCh **ʔámʔah* ~ **ʔámʔáh*, **ʔámʔa-s* ~ **ʔámʔá-s* • PW **ʔáma*

2.1.13 PM **w*

PM **w* is preserved as a distinct segment in all Mataguan languages. In Ni-vaçle, its reflex is often articulated as bilabial ([β]), but [w] is also a possible realization (see §7.1.1.1 for details); in this book we consistently represent the phoneme in question as Ni β. The distribution of PM **w* is defective: it is the

2 Consonants

only consonant that is hardly ever reconstructed in the coda position in Proto-Mataguayan.⁴ Some examples follow; note the irregular reflexes in Nivaçle (in dialects other than Chishamnee Lhavos) and Wichí in (696) as well as the irregular loss of PM *w in Maká in (701)–(702).

- (684) PM **áwá(?)* ‘flower’ > Ni *-aβá* • PCh 3 **hl-áwo?* • PW **-t-áwo*
- (685) PM **néwo(?)k* ‘wild manioc’ > Ni *noβok* • PCh (?) **n^əwák* • PW **néwok^w*
- (686) PM **-táwá^ʔx*, **-táwxä-ts* ‘(abdominal) cavity’ > Mk *-tawé^ʔx*, *-tawxe-ts* • Ni *-täβa^ʔf*, *-täβxa-s* • PCh **-tóweh* • PW **-tóweχ*
- (687) PM **téwo(?)k* [?] **téwá(?)k* ‘river’ > Ni *toβok* ~ *toβák* • PCh **téwok* ~ **téwák* • PW **téwok^w*
- (688) PM **-uwa* ‘termite house’ > Ni *-uβa* • PW **<t>uwa*
- (689) PM **-wa?* ‘plural (demonstratives)’ > Mk *-we?* • Ni *-βa?* • PCh **-wá?*
- (690) PM **wák^ʔa-ju^ʔk*, **wák^ʔa-jku-j^h* ‘guayacán’ > Mk *wek^ʔe-ju^ʔk*, *wek^ʔe-jkw-i* • PCh **wák^ʔa-juk*, **wák^ʔa-jku-j^h* • PW **wák^ʔa-juk^w*, **wák^ʔa-k^ʔu-j^h*
- (691) PM **wátá(?)χ* ‘palo flojo fruit’ > Ni *βátáx* • PW **wátox^w*
- (692) PM **wáth(á-j)u^ʔk* ‘palo flojo tree’ > Ni *βátxá-juk* • PCh **wáht<uk>*
- (693) PM **-wá^ʔk* ‘bad mood’ > Mk *-wak* • Ni *-βá^ʔk* • PCh **-wák* • PW **-wák^w*
- (694) PM **wák* ‘all’ > Mk *we:k* • Ni *-βatf* • PCh **-wek* • PW **-weq*
- (695) PM **-wá^ʔx*, **-w(ä)x-áj^h* ‘burrow; anus’ > Ni *-βa^ʔf*, *-βaf-aj^h* • PCh **-wéh* • PW **-wéχ*, *-wh-áj^h*
- (696) PM **wije?* ‘caraguatá (*Bromelia serra*)’ > Ni *βije?* ~ *jije?* • PCh **wijé?* • PW *^ʔ*wuje(?)*
- (697) PM **[ji]wó* ‘to do’ > Mk *wo?-oj* • Ni *βo?^{<oj>}* • PCh **[ʔi]wó* / **-wó* • PW **[ʔi]wó-*
- (698) PM **-wó* (**-ts*) ‘worm’ > Ni *-βo?* (-s) • PCh **-wó?* (*-s) • PW **-wó* (*-s)
- (699) PM **[ji]wo^ʔm* ‘to throw’ > Mk *[i]wu^ʔm* • PCh **[ʔi]wóm-APPL* • PW **[ʔi]wo^ʔm*
- (700) PM **wósak^ʔV(?)t* ‘red-crested cardinal’ > PCh **wós^ʔk^ʔat* • PW **wósak^ʔit*
[?] **wósak^ʔut*

⁴The possible exceptions to this generalization include PM **[t]k^ʔáw-APPL* ‘to hold in one’s arms, to hug’ and **-á^ʔw-APPL* ‘to be’, but these are typically followed by applicative suffixes. Word-internally, clusters such as **wt^ʔs* or **wt* are securely reconstructed in Proto-Mataguayan, but it is not clear whether they were necessarily heterosyllabic.

- (701) PM *wósitseχ ‘black algarrobo fruit (*Prosopis nigra*)’ > Mk *ositsaχ* • Ni *βaitsex* • PW *wósotsaχ
- (702) PM *wósits-u⁷k ‘black algarrobo tree (*Prosopis nigra*)’ > Mk *osits-u⁷k* • Ni *βaitse-juk* • PCh *wósis-uk • PW *wósots-uk^w
- (703) PM *-wóʔ (*-ts) ‘expert’ > Mk -woʔ (-ts) • Ni -βoʔ (-s) • PCh *-wóʔ (*-s) • PW *-wóʔ (*-s)
- (704) PM *wV⁷χ, *wV⁷-ts ‘large, fat’ > Ni -βá⁷x • PCh *wúh, *wú-s • PW *wúx^w, *wú-s
- (705) PM *xnáwá⁷p ‘spring’ > Mk *xinawa⁷p* • Ni *fnaβá⁷p* ~ *fnáβá⁷p* • PCh *náwop • PW *xnáwop
- (706) PM *X₂₃wé⁷lah, *X₂₃wé⁷la-ts ‘moon’ > Ni *xibe⁷la* (-s) • PCh *wé⁷lah, *wé⁷la-s • PW *xwé⁷lah
- (707) PM *ʔáwu(C)tseχ ‘peccary’ > Ni *ʔaβuktsex* ~ *ʔaβoktsex* • PCh *ʔáwusah • PW *ʔáwutsaχ
- (708) PM *ʔuwáte(?)χ [?] *C’uwáte(?)χ ‘puma’ > Ni <xum>p’uβatex • PCh *k’uwáhlah • PW *ʔowátax [?] *C’owátax

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaê, Chorote and Wichí), whose PM age is thus questionable.

- (709) PM *kowä⁷x / *-kówä⁷x ‘hole’ > PCh *kowéh / *-kóweh • PW *k⁷owex / *k⁷óweχ
- (710) PM *(-)nawan ~ *-ä- ‘hook’ > Mk *newen* • Ni -naβan
- (711) PM *qatsíwo(?) ‘limpkin’ > PCh *qasíwo<ʔoh> • PW *qatsíwo
- (712) PM *wapen ~ *wäpen ‘to be ashamed’ > Mk *wepin* • Ni *βapen*
- (713) PM *waφ ~ *wäφ ‘to be tired, to die’ > Mk [ji]wef • Ni *βaφ*
- (714) PM *(?)wawo(h) (*-l) ‘maned wolf’ > Mk *wowo* (-l) • Ni *βaβo* (-k)
- (715) PM *(?)wána⁷χ, *(?)wánha-ts ‘piranha’ > Mk *wana⁷χ*, *wanhe-ts* • Ni *βánax*, *βánxa-s*
- (716) PM *(?)wá⁷s ‘sky’ > Mk *wa⁷s* • Ni *βá⁷s*
- (717) PM *(?)wáse? ‘cloud’ > Mk *wasi?* • Ni *βáse?*
- (718) PM *wóna(?) ‘bala wasp honey; hat’ > PCh *wóna? • PW *wó⁷nah
- (719) PM *[ji]wún ‘to burn (tr.)’ > PCh *[ʔi]wún • PW *[ʔi]wún

2 Consonants

(720) PM $*(?)wut$ ‘a bushy leguminous plant’ > Mk *wut* • Ni *βut*

(721) PM $*Xmáwoh$ ‘fox’ > PCh $*máwo-tah$ • PW $**xámáwoh$

2.1.14 PM $*l$

PM $*l$ is preserved as a distinct segment in all Mataguayan languages except Nivaçle, where it yields \widehat{kl} (§7.1.1.2) or $-$ in the coda position $-k$ (§7.1.1.4). In Wichí, it changes to PW $*l^h$ word-finally (§9.1.1.13). Some examples follow; note the irregular glottalized reflexes in Chorote in (744) and (747).

(722) PM $*-ápil$ ‘to return thither’ > Mk $[w]apil$ • Ni $[\beta]apek$ • PCh $*[j]ápil$ • PW $*[j]ápil^h$

(723) PM $*(-é)l$ ‘PL’ > Mk $-l$ • Ni $-(e)k$ • PCh $*(-é)l$ • PW $*-(é)l^h$

(724) PM $*-éle(?) \sim *-\acute{a}le(?)$ ($*-j^h$) ‘inhabitant, inner’ > PCh $*-éle?$ ($*-j^h$) ‘inhabitant, intestine’ • PW $*-t-éle$ ($*-j^h$)

(725) PM $*[ji]\phi\acute{a}l$ ‘to tell’ > Mk $n(i)-fel-im$ • Ni $n(i)-\phi ak / n(i)-\phi ak\widehat{l}$ • PCh $*[ʔi]hwél$ • PW $*[ʔi]x^wél^h / *[ʔi]x^wél-$

(726) PM $*-\phi\acute{a}lits$ ‘daughter-in-law, sister-in-law’ > Mk $-felits$ • Ni $-\phi ak\widehat{l}is<?a>$ ‘sister-in-law’ • PCh $*-hwélis$ ‘daughter-in-law’

(727) PM $*-\phi\acute{a}lʔu?$ ($*-ts$) ‘son-in-law, brother-in-law’ > Mk $-felu?$ ($-ts$) • Ni $-\phi ak\widehat{l}ʔu$ ($-s$) ‘brother-in-law’ • PCh $*-hwílu?$ $^?$ $-hwélu?$ ($*-s$) ‘son-in-law’

(728) PM $*-kilá?$ ($*-wot$) ‘elder brother’ > Ni $-tfek\widehat{l}a?$ / $tfik\widehat{l}a-$ ($-\betaot$) • PCh $*-kilá?$ ($*-wot$) • PW $*-k^i\acute{a}la$

(729) PM $*kula^?j \sim *kulá^?j$ ‘sun’ > Ni $<xum>kuk\widehat{l}a^?j$ • PCh $*kulá^?j$

(730) PM $*[ji]l\acute{a}^?j$ ‘to withstand’ > Ni $[ji]k\widehat{l}a^?j$ • PCh $*[ji]l\acute{a}j-eh$ • PW $*[ji]l\acute{a}j$

(731) PM $*[ji]l\acute{a}n$ ‘to kill’ > Mk $[ji]lan$ • Ni $[ji]k\widehat{l}a\acute{n}$ • PCh $*[ʔi]l\acute{a}n$ • PW $*[ʔi]l\acute{a}n$

(732) PM $*l\acute{a}p^?ih \sim *l\acute{a}\phi^?ih$ ‘snail’ > Ni $k\widehat{l}a\acute{p}^?i$ • PCh $*l\acute{a}p^?ih$

(733) PM $*[ji]l\acute{a}t \sim *[ji]l\acute{a}t^? \sim *[ji]let \sim *[ji]lét$ ‘to flee’ > Mk $<i>lat \sim <i>lit$ • Ni $[ji]k\widehat{l}a\acute{t}$ • PCh $*<ʔ[ji]i>lt<an> \sim [ʔi]<ʔji>lt<an>$ • PW $*[ʔi]lét<han>$

(734) PM $*-l\acute{a}?$, $*-l\acute{a}-j^h$ ‘domestic animal’ > Ni $-k\widehat{l}a\acute{?}(-j)$ • PCh $*-l\acute{a}<hwah>$ • PW $*-l\acute{a}?$, $*-l\acute{a}-j^h$

(735) PM $*l\acute{a}tseni(?)$ ‘chañar fruit’ > PCh $*l\acute{e}tseni?$ • PW $*l\acute{e}tse^?nih$

(736) PM $*l\acute{a}tsen-u^?k$ ‘chañar plant’ > Mk $<xu>letsin-u^?k$ • PCh $*l\acute{e}seni-k$ • PW $*l\acute{e}tsen-uk^w$

- (737) PM *[ji]selán ‘to spank’ > Mk [j]<eq>silan ‘to spank’ • PCh *[ʔi]selán ‘to store’; *[ʔi]selán-eh ‘to prepare’
- (738) PM *-lés ‘offspring’ > Mk -lits • Ni -kles • PCh *-lés • PW *-lés
- (739) PM *[ji]léʔx ‘to wash’ > Mk [ji]lix-uʔ ‘to clean’ • Ni [ji]kleʔ • PCh *[ʔi]léh • PW *[ʔi]léχ
- (740) PM *lim ~ *lím ‘white’ > Ni klim • PCh *lím-
- (741) PM *(-)lo(?) ~ *(-)ló(?) ‘ashes’ > Mk loʔ • PCh *-lóʔ
- (742) PM *loʔp ~ *lóʔp, *lop-its ~ *lóp-its ‘winter’ > Mk loʔp, lop-its • Ni klopʔp, klop-is • PCh *lóp • PW *lop ~ *lóp
- (743) PM *lóta-(ju)ʔk ‘tree for making bows’ > Ni klóta<tf> • PCh *lóta-juk • PW *lôte<q>
- (744) PM *[ʔa]lóχ, *[ʔa]ló-ts ‘many’ > Mk <o>lo<ts> • Ni <ʔa>klox • PCh *[ʔa]löh • PW *<ʔa>ló<s>
- (745) PM *(-)lútseʔx, *(-)lútsxe-ts ‘bow’ > Ni klútsef / -klútseʔf, (-)klútsfe-s • PCh *(-)lúseh (*-es) • PW *(-)lútseχ, *(-)lútse-s
- (746) PM *[t]pil ‘to return hither’ > Mk [t(e)]pil • Ni [t(a)]pik ~ [t(a)]pek • PW *[t]píl^h
- (747) PM *-qaláʔ (*-j^h) ‘leg’ > Ni -kakláʔ (-j) • PCh *-qaʔláʔ ~ *-qáʔláʔ (*-j^h) • PW *-qáʔláʔ (*-j^h)
- (748) PM *sláqhaʔ(j), *sláqhaj-its ‘wild cat’ > Ni fkláqxaj ~ skláqxaj (-is) • PCh *sʔláhqajʔ ~ *sʔláhqáʔjʔ (*-is) • PW *siláqháj
- (749) PM *sʔwúlaʔχ, *sʔwúla-ts ‘anteater’ > Ni sʔbuklax, sbukla-s • PCh *sʔúlah, *sʔúla-s • PW *súlaχ
- (750) PM *[ni]-táʔä(ʔ)l-APPL ‘to know, to be acquainted’ > Ni [ni]táʔakl-APPL • PCh *[ʔi]táhwel-APPL • PW *-táx^{wel}-APPL / *-táx^{wh}-APPL
- (751) PM *tlúʔk ‘blind’ > Ni takluʔk • PCh *tʔlúk • PW *tilúk^w
- (752) PM *-tʔileʔ (*-j^h) ‘rheum’ > Mk -tʔiliʔ (-j) • Ni -tʔikle (-j) • PCh *-tʔile-
- (753) PM *ʔwäleʔk ‘to walk’ > Mk -<i>ʔwelki-ʔmet ‘to limp’ • Ni baʔkleʔtf • PCh *[ʔi]ʔwélek • PW *ʔweleq
- (754) PM *xélaʔjuʔk ‘tree sp.’ > Ni feklaʔjuk • PCh *hél-ek • PW *hél-ek^w
- (755) PM *(-)X₂₃pél ‘shadow’ > Ni xpek • PCh *-pél • PW *hpél^h / *-hpel^h
- (756) PM *ʔál(V)tseʔ(ʔ)χ, *ʔál(V)tse-ts ‘cháguar (*Deinacanthon urbanianum*)’ > Ni ʔáktsex, ʔáktse-s • PCh *ʔálʔsah, *ʔálʔse-s • PW *ʔáletsax

2 Consonants

- (757) PM *ʔásk'ála(?)χ 'widower' > Ni ʔástf'aklax • PCh *ʔásk'élah
 (758) PM *ʔéle(?) 'parrot' > Ni ʔekle • PCh *ʔéle? • PW *ʔéle
 (759) PM *ʔúlʔáh, *ʔúlʔá-ts 'dove' > Ni ʔuklʔá (-s) • PCh *ʔúlʔáh, *ʔúlʔá-s
 (760) PM *ʔVláʔah, *ʔVláʔa-ts 'lesser grison' > Mk ile • Ni ʔaklaʔa (-s) • PCh
 *ʔeláʔah, *ʔeláʔa-s ~ *ʔaláʔah, *ʔaláʔa-s • PW *ʔiláʔah

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (761) PM *-áʔl 'light, brightness' > PCh 3 *hl-áʔl • PW *-t-ál^h
 (762) PM *ʔílá(?)X₁₂ 'pocote (*Solanum sp.*)' > PCh *hwilâh • PW *x^wilâχ
 (763) PM *[ji]kálaʔ 'to fry' > Mk [j]-a>kaleʔ • Ni [ji]kaklâʔ / -kaklâʔ
 (764) PM *kóʔl 'locust' > PCh *kóʔl • PW *k'ól^h
 (765) PM *-k'aló(?) (*-ts) 'cheek' > PCh *-k'aló? (*-s) • PW *-k^j'álo (*-s)
 (766) PM *lama(h) ~ *läma(h) (*-m) 'to be smooth' > Mk le:me, leme-m • Ni
 klama<m>
 (767) PM *[ji]lá(?)t 'to feel' > PCh *[ʔi]lát-ej^h • PW *[ʔi]lát
 (768) PM *lâtsiki-juʔk 'willow' > Mk lattsiki-juʔk • Ni klâtsiki-juk
 (769) PM *maʔlaʔl ~ *-ä- 'agile' > Mk meʔleʔl 'to move' • Ni maklâʔk
 (770) PM *púle(?) (*-ts) 'sky, cloud' > PCh *púle? (*-s) • PW *púle (*-s ~ *-tájis)
 (771) PM *-qásile(?) (*-j^h) 'guts' > PCh *-qásile-j^h • PW *-qásle-j^h
 (772) PM *sála(?)l, *sálâl-its 'middle-sized cicada' > Mk sala(?)l, salal-its • Ni
 sâkl<âkl>âk (-is)
 (773) PM *-ʔwóle(?) 'leaf, hair, feather' > PCh *-ʔwóle? • PW *-ʔwóle
 (774) PM *-xéle? 'dirt' > Mk -xili? • Ni -fekle
 (775) PM *ʔâʔteʔl 'orphan' > Mk aftiʔl • Ni ʔâʔteʔk
 (776) PM *-ʔá(?)l, 3 *ʔʔi(?)l 'to die' > PCh *ʔʔá(?)l • PW *ʔʔil^h
 (777) PM *ʔʔóp'ale(?) 'to hiccup' > Ni [ʔʔ]op'akle / -ʔop'akle 'to choke' • PCh
 *ʔʔóp'ale? • PW *ʔʔóp'le
 (778) PM *-ʔóʔthale(?) ~ *-ʔóʔthâle(?) 'heart' > PCh *-ʔóhtale? ~ *-ʔóhtâle? • PW
 *-t-ótle

2.1.15 PM *j

PM *j is a stable phoneme: it is preserved in all daughter languages as j (except in the sequence PM *ji, on which see below). In (783) and (801), Wichí shows an irregular reflex (PW *j^h) word-finally, possibly due to analogy with the plural suffix PW *-(á)j^h. Also note the irregular glottalized reflex in Chorote in (787).

- (779) PM *-aje^ʔk ~ *-aje^ʔk ‘honey comb’ > Ni -aje^ʔf • PCh *-q-ájek
- (780) PM *n-ájin ‘to go first’ > Mk [wa]<th>ajin • Ni n-ájin • PCh *[ʔi]<n>ájin
- (781) PM *-áʔj, *-áj-is ‘yica bag’ > Ni -a^ʔj, -aj-is • PCh *-éjʔ (*-is) • PW *-t-éj (*-is)
- (782) PM *-éj (*-its) ‘name’ > Mk -ij (-its) • Ni -ej (-is) • PCh *-éjʔ (*-is) • PW *-t-éj (*-is)
- (783) PM *faʔáj ‘algarrobo fruit (*Prosopis alba*)’ > Ni faʔaj • PCh *hwaʔájʔ • PW *x^waʔáj^h
- (784) PM *-fáji^ʔx ‘right’ > Mk -feji^ʔx ‘left’ • Ni -faji^ʔf • PCh *-hwíjah
- (785) PM *[ji]fi^ʔj ~ *[ji]fi^ʔj ‘not to be afraid’ > Ni [ji]fi^ʔj • PCh *[ʔi]hwíjʔ • PW *[ʔi]x^wij-eh
- (786) PM *-jáʔ ‘breath’ > Ni -jaʔ • PCh *-jáʔ • PW *-jáʔ
- (787) PM *[ji]jáʔ ‘to drink’ > Mk <i>jaʔ • Ni [ji]jáʔ • PCh *[ʔi]ʔjáʔ • PW *[ʔi]jáʔ
- (788) PM *jijá^ʔts ‘dew’ > Mk ije^ʔts • Ni jija^ʔs • PCh *ʔijés-tah • PW *ʔijás
- (789) PM *jiju^ʔs ~ *jijú^ʔs ‘wax’ > Ni jiju^ʔs • PCh *ʔijús
- (790) PM *-(j)uk, *-(j)ku-j^h ‘tree (suffix)’ > Mk -(j)uk, -(j)kw-i • Ni -(j)uk, -ku-j • PCh *-(j)uk, *-(j)ku-j^h • PW *-(j)uk^w, *-k^ʷu-j^h
- (791) PM *-ko(ʔ)j (*-áʔ^h) ‘hand, arm’ > Mk -koj (-ej) • PCh *-kóʔjʔ, *-koj-áʔ^h
- (792) PM *kula^ʔj ~ *kulá^ʔj ‘sun’ > Ni <xum>kuklá^ʔj • PCh *kulájʔ
- (793) PM *k^ʷuj ~ *k^ʷúj ‘cold’ > Mk k^ʷwi / k^ʷuj- • Ni k^ʷuj • PCh *k^ʷújʔ
- (794) PM *k^ʷú(t)sta(ʔ)χ, *k^ʷú(t)sta-ts ‘barn owl’ > Ni (?) k^ʷustax, k^ʷusta-s ‘mockingbird’ • PCh *k^ʷústah, *k^ʷústa-s • PW *k^ʷústax
- (795) PM *lájX₂₃VnáX₁₃á ‘Azara’s night monkey’ > Ni klajxenáxá • PCh *léhjanáhá-keʔ
- (796) PM *mijó (*-l) ‘savannah hawk’ > Mk mijo (-l) • Ni mijo (-k) • PCh *mijóʔ (*-l) • PW *mijóh
- (797) PM *(-)niják, *(-)nijhá-j^h ‘rope, cord’ > Mk (-)nijak, (-)nijha-j • Ni -niják, -nijhá-j • PCh *niják, *níjhá-j^h • PW *niják^w, *nijhá-j^h

2 Consonants

- (798) PM $*(-)^{\circ}n\acute{a}ji^{\circ}x$, $*(-)^{\circ}n\acute{a}jx-aj^h$ ‘path’ > Ni $n\acute{a}ji^{\circ}f$, $(-)^{\circ}n\acute{a}jf-aj$ / $-^{\circ}n\acute{a}ji^{\circ}f$ • PCh $*(-)^{\circ}n\acute{a}jih$, $*(-)^{\circ}n\acute{a}hj-aj^h$ • PW $*(-)^{\circ}n\acute{a}ji\chi$, $*(-)^{\circ}n\acute{a}jh-aj^h$
- (799) PM $*[t]p\acute{a}^{\circ}j$ ‘to be bitter’ > Ni $[t^{\circ}a]p\acute{a}^{\circ}j$ • PCh $*p\acute{a}hj-i?$ • PW $*[t]p\acute{a}j$
- (800) PM $*[ji]p\acute{e}^{\circ}j-a?$ ‘to hear’ > Mk $[ji]pi^{\circ}j-e?$ • Ni $[ji]pe^{\circ}j-a$ • PCh $*[?i]p\acute{e}^{\circ}j-a?$
- (801) PM $*p\acute{e}t\acute{a}(\circ)j$, $*p\acute{e}t\acute{a}j-its$ ‘rain’ > Mk $pi\acute{t}ej(-its)$ • PCh $*p\acute{e}hlaj?$ • PW $*p\acute{e}t\acute{a}j^h$, $*p\acute{e}t\acute{a}j-is$
- (802) PM $*-q\acute{e}j$ ($*-its$) ‘custom’ > Ni $-kej(-is)$ • PCh $*-q\acute{e}j?$ ($*-is$) • PW $*-q\acute{e}j$ ($*-is$)
- (803) PM $*sl\acute{a}qha(\circ)j$, $*sl\acute{a}qhaj-its$ ‘wild cat’ > Ni $skl\acute{a}kxaj \sim skl\acute{a}kxaj(-is)$ • PCh $*s^{\circ}l\acute{a}hqaj?$ ~ $*s^{\circ}l\acute{a}hq\acute{a}j?$ ($*-is$) • PW $*sil\acute{a}qh\acute{a}j$
- (804) PM $*tij\acute{a}^{\circ}\chi$ ‘to shoot, to throw’ > Mk $tija^{\circ}\chi$ / $-tija^{\circ}\chi$ • Ni $tij\acute{a}^{\circ}x$ • PCh $*[?i]tij\acute{a}h$ • PW $*tij\acute{a}\chi$
- (805) PM $*-t^{\circ}ij \sim *-t^{\circ}ij$ ‘to move’ > Ni $[\beta a]t^{\circ}ij$ • PCh $*[?i]t^{\circ}ij?$
- (806) PM $*wije?$ ‘caraguatá (*Bromelia serra*)’ > Ni $\beta ije?$ ~ $jije?$ • PCh $*wijé?$ • PW $*^{\circ}wuje(?)$
- (807) PM $*x\acute{e}j\acute{a}?$ ($*-l$) ‘bat’ > Mk $xaja?$ ($-l$) • Ni $fej\acute{a}(-k)$ • PCh $*<a>h\acute{e}ja?$ ($*-l$)
- (808) PM $*\acute{a}q\acute{a}j\acute{e}^{\circ}k$ ‘wild honey’ > Ni $\acute{a}k\acute{a}jetf$ • PW $*\acute{a}q\acute{a}j\acute{e}j$
- (809) PM $*\acute{a}X_{13}\acute{a}je(\circ)\chi$ ‘mistol fruit’ > Ni $\acute{a}x\acute{a}jex$ • PCh $*\acute{a}h\acute{a}jah$ • PW $*\acute{a}h\acute{a}ja\chi$
- (810) PM $*\acute{a}X_{13}\acute{a}j-u^{\circ}k$, $*\acute{a}X_{13}\acute{a}j-ku-j^h$ ‘mistol tree’ > Ni $\acute{a}x\acute{a}j-uk$, $\acute{a}x\acute{a}j-ku-j$ • PCh $*\acute{a}h\acute{a}j-uk$, $*\acute{a}h\acute{a}j-ku-j^h$ • PW $*\acute{a}h\acute{a}j-uk^w$
- (811) PM $*\acute{a}nhajex$ ‘wild bean (*Capparis retusa*)’ > Mk $anhaja\chi$ • Ni $\acute{a}nxajex$ • PCh $*\acute{a}ohnajah$ • PW $*\acute{a}nhaja\chi$
- (812) PM $*\acute{e}ja?$ ($*-l$) ‘mosquito’ > Mk $ije?$ ($-l$) • Ni $jija?$ • PCh $*\acute{e}ja?$ ($*-l$)

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêlé, Chorote and Wichí), whose PM age is thus questionable.

- (813) PM $*[j]\acute{a}tsi(\circ)j$ ‘to spill’ > Mk $[j]atsij-xu?$ • Ni $[j]\acute{a}tsij$
- (814) PM $*\phi axi(\circ)j \sim *\phi\acute{a}xi(\circ)j$ ‘green ameiva’ > Mk $fexij$ • Ni $\phi afij$
- (815) PM $*-k\acute{e}j\acute{a}(\circ)(f.)$, $*-k\acute{e}j\acute{a}ts(m.)$, $*-k\acute{e}(j)ts\acute{a}-ts(pl.)$ ‘grandchild’ > PCh $*-k\acute{e}j\acute{a}?$, $*-k\acute{e}j\acute{a}s$, $*-k\acute{e}ts\acute{a}s$ • PW $*-k^{\circ}j\acute{e}j\acute{a}$, $*-k^{\circ}j\acute{e}j\acute{a}s$, $*-k^{\circ}j\acute{e}ts\acute{a}s$
- (816) PM $*[t]k^{\circ}ij$ ‘to spit’ > Mk $[te]k^{\circ}ij$ • Ni $[t]<^{\circ}a>k^{\circ}ij$
- (817) PM $*sij\acute{a}(\circ)\chi$, $*sij\acute{a}\chi-is$ ‘fish sp.’ > Mk $sija(\circ)\chi$, $sija\chi-its$ • Ni $sij\acute{a}x(-is)$
- (818) PM $*ti^{\circ}j$ ‘to weave’ > Mk $tij / -tij$ • Ni $ti^{\circ}j$

- (819) PM *t'áʔj 'to sound, to have voice' > Mk t'aj • Ni t'áʔj
 (820) PM *[ji]tsá(ʔ)j 'to spill' > PCh *[ʔi]sájʔ • PW *[ʔi]tsáj
 (821) PM *-ʔwu(ʔ)j 'clothes, blanket' > PCh *-ʔwújʔ • PW *-ʔwuj
 (822) PM *ʔáthajex ~ *ʔáthäjex 'molle fruit' > Mk athejaχ • Ni ʔátxajex

In the sequence PM *ji, all languages show some tendency for eliminating the palatal approximant. It is most consistently preserved in Nivaçle, though even there *ji* varies with *i* depending on the dialect and on the speech rate (see §7.2.2). In Maká, it yields either *ji* or *i*, with no clear distribution. In Chorote, it is consistently reflected as PCh *ʔi (or as *ʔja before *q). In Wichí, it is usually reflected as PW *ʔi (or PW *hi before a glottalized consonant due to a general glottal dissimilation rule, §9.1.1.8), but is retained as PW *ji when followed by a uvular or glottal consonant, as evident from alternations in the third-person prefix (Nercesian 2014: 241–242).

- (823) PM *jijáʔts 'dew' > Mk ijeʔts • Ni jijaʔs • PCh *ʔijés-tah • PW *ʔijás
 (824) PM *jijuʔs ~ *jijúʔs 'wax' > Ni jijuʔs • PCh *ʔijús
 (825) PM *jináʔt, *jinát-its 'water' > Ni jináʔt, jinát-is • PCh *ʔiʔnát (*-es) • PW *ʔinát (*-es)
 (826) PM *jiʔno, *jiʔnó-l 'man' > PCh *ʔiʔnóʔ (*-l) • PW *hiʔno, *hiʔnó-l^h
 (827) PM *(-)jipkuʔ (*-l) 'hunger' > Mk (-)jipkuʔ (-l) • Ni jipkuʔ / -jipku (-k)
 (828) PM *jixáʔ(?) ~ *jixáʔ(?) 'to be true' > Mk ixa • Ni jixáʔ • PCh *ʔihá<wet>
 (829) PM *jiʔixátaχ, *jiʔixáta-ts 'ocelot' > Mk iʔixataχ, iʔixate-ts • Ni jixátax, jixáta-s

When followed by a glottalized consonant and a low vowel (PM *a or *á, but not *ä), PM *ji evolved to *ʔi > *ʔa in Chorote, and to *ʔi > *ʔa > *ha in Wichí.

- (830) PM *jiʔjáʔX₁₂ 'jaguar' > Ni jiʔjáʔx • PCh *ʔaʔjáʔ • PW *haʔjáχ
 (831) PM *jiʔláʔ, *jiʔláʔ-j^h 'tree' > Ni jiʔkláʔ (-j) • PCh *ʔaʔláʔ (*-j^h) • PW *haʔlá, *haʔlá-j^h
 (832) PM *jitʔáʔ, *jitʔáʔ-l 'vulture' > Ni jitʔáʔ(-k) • PCh *ʔatʔáʔ(*-l) • PW *hatʔáʔ(?)

2 Consonants

2.1.16 PM *m

PM *m is a stable phoneme: it is preserved in all daughter languages as *m*. Note the irregular loss of PM *m in Wichí in §847.

- (833) PM *n-ám ‘to arrive’ > Mk *n-am* • Ni *n-am* • PCh *n-ám • PW *<n>ám
- (834) PM *-áme(?)t / -ámte- ‘word’ > PCh *-ámt- • PW *-ámet, -ámte-s
- (835) PM *[t]kúʔm-APPL ‘to grab; to work’ > Mk [te]kuʔm-APPL • Ni [tʰa]kuʔm-APPL • PCh *[ʔi]kúm-APPL • PW *[t]kʰú(?)m-APPL
- (836) PM *lim ~ *lím ‘white’ > Ni *klim* • PCh *lím-
- (837) PM *[ji]táʔm ‘to defecate’ > Mk <i>táʔm • Ni [ji]táʔm • PCh *[ʔi]hláʔm • PW *[t]cʰa>táʔm
- (838) PM *túmʔa ‘day’ > Ni *tumʔa* • PCh *hlúmaʔ
- (839) PM *ma ‘interrogative particle’ > Mk *me* • PCh *ma
- (840) PM *[ji]má ‘to sleep’ > Mk [i]maʔ • Ni [ji]máʔ • PCh *[ʔi]máʔ • PW *[ʔi]má
- (841) PM *máh ‘go!’ > Mk *ma* • Ni *má* • PCh *máh^h • PW *máh
- (842) PM *-máʔk, *-mhá-j^h ‘powder, flour’ > Ni -máʔk, -mxá-j • PCh *-mák • PW *-mók^w, *-mhó-j^h
- (843) PM *mät ‘hither, nearby’ > Mk *met* ‘nearby’ • PCh *mét ‘hither’
- (844) PM *me(?) ~ *mé(?) ‘otter’ > Mk *mi?* • Ni *me?* • PCh *mé?
- (845) PM *mijó (*-l) ‘savannah hawk’ > Mk *mijo* (-l) • Ni *mijo* (-k) • PCh *mijóʔ (*-l) • PW *mijóh
- (846) PM *-muk, *-mhu-j^h ‘feces’ > Mk <i>muk, <i>mhu-j • Ni (-)<sa>muk, (-)<sa>mxu-j • PCh *-<ʔjá>muk • PW *-<ʔjá>muk^w, *-<ʔjá>mhu-j^h
- (847) PM *pháʔm ‘up’ > Mk -phaʔm • PCh *pʰháʔm • PW *-phá / *phâm-
- (848) PM *-támte? (*-ts) ‘daughter-in-law’ > Ni -támte<ʔe> (-s) • PCh *-támte? (*-s)
- (849) PM *tim ‘to swallow’ > Mk *tim-xu?* / -tím-xu? • Ni *tim* • PCh *[ʔi]tím • PW *tim
- (850) PM *ʔámʔáh, *ʔámʔá-ts ‘rat’ > Ni ʔámʔá (-s) • PCh *ʔámʔah ~ *ʔámʔáh, *ʔámʔa-s ~ *ʔámʔá-s • PW *ʔáma
- (851) PM *ʔ[j]im ‘to dry out’ > Mk [j]im • Ni [j]im • PCh *ʔ[j]ím-APPL • PW *ʔ[j]im

- (852) PM *^ʔ[j]om ‘to be extinguished’ > Mk [j]om • PCh *^ʔ[j]óm-APPL • PW *^ʔ[j]om

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (853) PM *-*ɸom* ‘to throw, to push’ > PCh *^ʔ[i]hwóm-ah • PW *^ʔ[t]x^wom
- (854) PM **him* (*-its) ‘coati’ > Mk *him* (-its) • Ni *xim* (-is)
- (855) PM *^ʔ[wa]kuma^ʔχ ‘to run’ > Mk [we]kuma^ʔχ • Ni [βa]kuma^ʔx
- (856) PM **lama(h)* ~ **läma(h)* (*-m) ‘to be smooth’ > Mk *le:me*, *leme-m* • Ni *k̄lama<m>*
- (857) PM **ma^ʔla^ʔl* ~ **-ä-* ‘agile’ > Mk *me^ʔle^ʔl* ‘to move’ • Ni *mak̄la^ʔk*
- (858) PM **púm* ‘drum’ > PCh **púm* • PW **púm*
- (859) PM **-témä(°)k* ~ **-tāmä(°)k*, **-témh-aj^h* ~ **-tāmh-aj^h* ‘bile’ > PCh **-téme^k*, **-téhm-aj^h* • PW **-témeq*, **-témh-aj^h*
- (860) PM **tsémłá(°)k* ~ **tsámłá(°)k* ‘silk floss tree’ > PCh **sémhlāk* • PW **tsémłāk^w*
- (861) PM **Xmáwoh* ‘fox’ > PCh **máwo-tah* • PW **xmáwoh*

2.1.17 PM **n*

PM **n* is a stable phoneme: it is preserved in all daughter languages as *n*, except that in Wichí the word-final sequence **-nV* changes to **-^ʔnVh*, as in (878), (896), (897), (924), (928) (see §9.1.1.12). An irregular glottalized reflex of PM **n* in other environments is occasionally found in Chorote, as in (870) and (903), and Wichí (864).

- (862) PM **n-ájin* ‘to go first’ > Mk [wa]<th>*ajin* • Ni *n-ájin* • PCh *^ʔ[i]<n>*ájin*
- (863) PM *^ʔ[t](^ʔ)*án* ‘to shout’ > Mk (?) [t]^ʔ*an* ‘to win’ • Ni [t]^ʔ*án* • PCh *^ʔ[t]^ʔ*án* • PW *^ʔ[t]^ʔ*án*
- (864) PM **-áni^s* ‘stinger’ > Mk 3 *ł-ani^s* • Ni 3 *ł-ánis* • PCh 3 **hl-áni^s* • PW (?) 3 **ł-á^ʔni*
- (865) PM *^ʔ[j]*án* ‘to put’ > Mk [j]*en-APPL* • Ni [j]*an* • PCh *^ʔ[j]*én* • PW *^ʔ[j]*én*
- (866) PM *^ʔ[ji]*ɸχän-* ~ *^ʔ[ji]*ɸχän-* ‘to kill a bird’ > Ni [ji]*ɸxan-APPL* • PCh **<ʔa>hwén-(n)ah* ‘bird’ • PW **<ʔa>x^wén-k^ʔe* ‘bird’

2 Consonants

- (867) PM **φínä*(?)*χ* ‘crab’ > Ni *φinax* • PCh **hwíneh*
- (868) PM **φkéna*(?)*χ* ‘north wind, north’ > Ni *φtfenax* • PCh **hw^okénah*
- (869) PM **φtsána*(?)*χ* ‘suncho (*Baccharis* sp.)’ > Ni *φtsánax* • PCh **sánah* • PW **x^witsánaχ*
- (870) PM **jiná^ʔt*, **jinát-its* ‘water’ > Ni *jiná^ʔt*, *jinát-is* • PCh **ʔi^onát* (*-es) • PW **ʔinát* (*-es)
- (871) PM **-kán* (*-its) ‘testicle’ > Ni *-kán-fij* • PCh **-kán<is>* • PW **-k^ʰán<is>*
- (872) PM **[ji]kén* ‘to send’ > Mk *[j]<u>kin* • Ni *[ji]tʃen* • PCh **[ʔi]kén* • PW **[ʔi]k^ʰén*
- (873) PM **-kun* ~ **-kún* ‘to eat (intr.)’ > Ni *<tsak>kun* • PCh **[t^o]<ʔjá>kun*
- (874) PM **[ji]k^ʰán* ‘to stretch out’ > Ni *[ji]tʃ^ʰan* • PCh **[ʔi]k^ʰén-APPL* • PW **[hi]k^ʰén*
- (875) PM **-k^ʰínix*, **-k^ʰínxi-ts* ‘younger brother’ > Mk *-k^ʰinix* • Ni *-tʃinif* • PCh **-k^ʰínih*, **-k^ʰíhni-s* • PW **-k^ʰínix*, **-k^ʰínhi-s*
- (876) PM **k^ʰutX₂₃á^on*, **k^ʰutX₂₃án-its* ‘thorn’ > Ni *k^ʰutxa^on*, *k^ʰutxan-is* • PCh **k^ʰutá^on*, **k^ʰután-is* • PW **k^ʰuthá^on*, **k^ʰuthán-is*
- (877) PM **[ji]lán* ‘to kill’ > Mk *[ji]lan* • Ni *[ji]klán* • PCh **[ʔi]lán* • PW **[ʔi]lán*
- (878) PM **látseni*(?) ‘chañar fruit’ > PCh **létseni?* • PW **létse^onih*
- (879) PM **látsen-u^ok* ‘chañar plant’ > Mk *<xu>letsin-u^ok* • PCh **léseni-k* • PW **létsen-uk^w*
- (880) PM **[ji]lXón* ‘to roast’ > Ni *[ji]kxon* • PCh **[ʔi]hlón* • PW **[t]nhón*
- (881) PM **lájX₂₃VnáX₁₃á* ‘Azara’s night monkey’ > Ni *klájxenáxá* • PCh **léhjanáhâ-ke?*
- (882) PM **[ji]tán* ‘to light fire’ > Mk *[ni]tán-APPL* • Ni *[ji]tán* • PCh **[ʔi]hlán-APPL* • PW **[ʔi]tán-APPL*
- (883) PM **n-* ‘this (outside one’s hands’ reach)’ > Mk *n-* • PCh **ná?* • PW **=nah* ‘this (within one’s hands’ reach)’ / (?)**n<ih>* ‘this (outside one’s hands’ reach, vertical)’
- (884) PM **-ná^h* ‘to bathe’ > Ni *[βa]naj* • PCh **[ʔi]náj-APPL* • PW **[ʔi]náj^h*
- (885) PM **-na^ʔx* ~ **-ná^ʔx* / **-nxa* ~ **-nxá* ‘nose’ > Mk *-ne^ʔx* / *-nxe* • Ni *-na^ʔʃ*, *-nfa-s* • PCh **-hná<tVwoh>* • PW **-nh<us>*
- (886) PM **-ná*(?) ~ **-ná*(?) (*-wot) ‘father’ > Ni *nâ-βot* ‘parents’ • PCh **-ná?*, **-ná-wot*

- (887) PM **néwo*(^o)*k* ‘wild manioc’ > Ni *noβok* • PCh (?) **n^owák* • PW **néwok^w*
- (888) PM *(-)*niják*, *(-)*nijhá-j^h* ‘rope, cord’ > Mk (-)*nijak*, (-)*nijha-j* • Ni *-niják*, *-nijxá-j* • PCh **niják*, **nijhá-j^h* • PW **niják^w*, **nijhá-j^h*
- (889) PM **-nji^ox* ‘smell’ > Mk *-nji^ox* • Ni *-ni^of* • PCh **-nih* • PW **-niχ*
- (890) PM *(-)*nú*(^o) (**-ts*) ‘bone’ > Mk *-nu* (-*ts*) • Ni *-nu?* (-*s*) • PW **nú*(^o)
- (891) PM *[*ji*]*nxi^owän* ‘to smell’ > Mk [*ji*]*nxi^owen* • PCh *[*ʔi*]*hni^owen*
- (892) PM *^o*nátu*(*h*), *^o*nátu*-*ts* ‘day, world’ > Mk *netu* (-*ts*) • Ni *natu* (-*s*) • PCh *^o*náhl<ekis>* ~ *^o*náhl<ekes>* ‘midday’
- (893) PM *[*ji*]*pónit-ex* ‘to fill’ > Mk [*j*]*<o>pon-het-ix* • Ni [*ji*]*pont-ef* • PCh *[*ʔi*]*pónit-eh* • PW *[*ʔi*]*tá-ponit-eχ*
- (894) PM *[*t*]*qánhan* ‘to fish with a hook’ > Mk [*ta*]*<qa>qanhen* • PCh *[*t^o*]*qánhan* • PW *[*t*]*qánhan*
- (895) PM *[*ji*]*selán* ‘to spank’ > Mk [*j*]*<eq>silan* ‘to spank’ • PCh *[*ʔi*]*selán* ‘to store’; *[*ʔi*]*selán-eh* ‘to prepare’
- (896) PM **sténi*(^o) ‘white quebracho’ > Mk *sitin-u^ok* • PCh *^o*sténi?* • PW *^o*ʔisté^onih*
- (897) PM **stwú^on*, **stwún*-*its* ‘king vulture’ > Ni *staβu^on*, *staβun*-*is* • PCh *^o*stúu^on*, *^o*stúun*-*is* • PW *^o*ʔistíwin*
- (898) PM *[*ji*]*s^owun* ~ *[*ji*]*s^owún* ‘to like, to love’ > Mk [*ji*]*su^ozun* • Ni [*ji*]*s^oβun* • PCh *[*ʔi*]*s^oʔún*
- (899) PM **tänúk* (**-its*) ‘feline’ > Mk *tenuk* (-*its*) • Ni *tanuk* (-*is*) • PCh **tinúk* (**-is*)
- (900) PM **táxχan* ‘to thunder’ > Mk *texen* • Ni *tafχen* • PW **t^oáχan*
- (901) PM **t^oún* ‘hard’ > Mk *t^oun* • Ni *t^oun* • PCh **t^oún* • PW **t^oún*
- (902) PM **tsänú^ok* ‘duraznillo trees’ > Ni *tsanu^ok* • PCh **sinúk* • PW **tsinúk^w*
- (903) PM *^o*wátshan* ~ *^o*wátsχan* ‘to be healthy, alive’ > Ni *βatsχan* • PCh *^o*wása^on* • PW *^o*wátshan*
- (904) PM *[*ji*]*^owán* ‘to see’ > Mk [*ji*]*^owen* • Ni [*ji*]*^oβan* • PCh *[*ʔi*]*^owén* • PW *[*hi*]*^owén*
- (905) PM **xnáwá^op* ‘spring’ > Mk *xinawa^op* • Ni *fnaβá^op* ~ *fnáβá^op* • PCh **náwop* • PW **xnáwop*

2 Consonants

- (906) PM $*(X_{13}on-)xa^{\prime}\chi$, $*(X_{13}on-)xáh-aj^h$ ‘night’ > Mk $\langle na \rangle xa^{\prime}\chi$ • Ni $\langle xon \rangle fa^{\prime}x$, $\langle xon \rangle fa^{\prime}x-aj$ • PCh $*\langle ?a \rangle h \langle n \rangle áh \sim * \langle ?á \rangle h \langle n \rangle áh$ • PW $*\langle hon \rangle a\chi$, $*\langle hon \rangle áh-aj^h$
- (907) PM $*\acute{?án}hajex$ ‘wild bean (*Capparis retusa*)’ > Mk $anheja\chi$ • Ni $?ánxajex$ • PCh $*\acute{?óh}najah$ • PW $*\acute{?án}hja\chi$
- (908) PM $*\acute{?án}itih$ ‘wasp sp.’ > Ni $?ániti$ • PCh $*\acute{?án}itih$
- (909) PM $*-?ás\chi a^{\prime}n$, $*-?ás\chi án-its$ ‘meat’ > Mk $-?ese^{\prime}n$, $-?esen-its$ • Ni $-(?a)sxa^{\prime}n$, $-(?a)sxan-is$ • PCh $*-?isá^{\prime}n$, $*-?isán-is$ • PW $*-t-^{\prime}isa^{\prime}n$, $*-t-^{\prime}isán-is$
- (910) PM $*[j]éjxáts-han$ ‘to teach’ > Mk $[j]ixats \langle hen \rangle$ • Ni $[j]ejxats-xan / -?ejxats-xan$ • PCh $*[j]éjáhás \langle an \rangle$
- (911) PM $*\acute{?ón}a(?)\chi$ ‘my brother’ > Ni $?onax$ • PCh $*\acute{?ón}ah$

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivačle, Chorote and Wichí), whose PM age is thus questionable.

- (912) PM $*[?i]fá(t)s^{\prime}un$ ‘to spit’ > PCh $*[?i]hwáts^{\prime}un-APPL$ • PW $*[?i]x^wáts^{\prime}un$
- (913) PM $*-fí\acute{t}an$ ‘to dream’ > PCh $*[?i]hwíhlan$ • PW $*[t]x^wí\acute{t}an$
- (914) PM $*\phi iná\acute{k}$, $*\phi inhá-j^h$ ‘tobacco’ > Mk $finak$, $finha-j$ • Ni $\phi iná\acute{k}$, $\phi inxá-j$
- (915) PM $*-k\acute{V}nt(?)$... ‘kidney’ > PCh $*-kánt^{\prime}ijaa?$ • PW $*-k^{\prime}óntowaj$
- (916) PM $*[t]k^{\prime}an \sim * [t]k^{\prime}án$ ‘to obey’ > Mk $[te]k^{\prime}en$ ‘to respect’ • Ni $[t(a)]t^{\prime}an$
- (917) PM $*(-)nawan \sim *-\acute{a}$ ‘hook’ > Mk $newen$ • Ni $-na\beta an$
- (918) PM $*níltsa(?)X_{12}$, $*níltsX_{13}a-ts$ ‘white-lipped peccary’ > PCh $*\langle ?ih \rangle níltsah$, $*\langle ?ih \rangle níltsa-s$ • PW $*nít\acute{s}a\chi$, $*nítsha-s$
- (919) PM $*[?i]pén \sim * [?i]pán$ ‘to cook’ > PCh $*[?i]pén$ • PW $*[?i]pén$
- (920) PM $*kpéna(?)X_{12} \sim *kpána(?)X_{12}$, $*kpénX_{13}a-ts \sim *kpánX_{13}a-ts$ ‘orphan’ > PCh $*k \langle em \rangle pénah$, $*k \langle em \rangle péhna-s$ • PW $*k^j péna\chi$, $*k^j péhna-s$
- (921) PM $*tana(h) \sim *täna(h)$ ‘standing, vertical’ > Mk $te:ne$, $tene-m$ • Ni $tana$
- (922) PM $*tátsna(?)X_{12} \sim *tátsne(?)\chi$ ‘toad’ > PCh $*tásVnah$ • PW $*tát\acute{n}a\chi$
- (923) PM $*tkéna(?)X_{12} \sim *tkána(?)X_{12}$, $*tkénX_{13}a-ts \sim *tkánX_{13}a-ts$ ‘precipice; hill, mountain’ > PCh $*t^{\prime}kénah$, $*t^{\prime}kéhna-s$ • PW $*tk^j éna\chi$, $*tk^j éhna-s$
- (924) PM $*tsóna(?)$ ‘red brocket’ > PCh $*tsóna?$ • PW $*tsó^{\prime}nah$
- (925) PM $*wapen \sim *wäpen$ ‘to be ashamed’ > Mk $wepin$ • Ni $\beta apen$

- (926) PM $*(^?)wána^{\chi}$, $*(^?)wánha-ts$ ‘piranha’ > Mk $wana^{\chi}$, $wanhe-ts$ • Ni $\beta\acute{a}nax$, $\beta\acute{a}nxa-s$
- (927) PM $*wkína(^?)X_{12}$, $*wkinX_{13}a-ts$ ‘metal’ > PCh $*w^{\omega}kínah$, $*w^{\omega}kínha-s$ • PW $*k^jína\chi$, $*k^jínha-ts$
- (928) PM $*wóna(^?)$ ‘bala wasp honey; hat’ > PCh $*wóna?$ • PW $*wó^{\omega}nah$
- (929) PM $*[ji]wún$ ‘to burn (tr.)’ > PCh $*[ʔi]wún$ • PW $*[ʔi]wún$
- (930) PM $*[ji]X_{13}án-ex$ ‘to know’ > PCh $*<ʔ[j]a>hán-eh$ • PW $*[ji]hán-ex$
- (931) PM $*ʔa^{\omega}nqo^{\omega}k$ ‘paralytic’ > Mk $onqok$ • Ni $ʔa^{\omega}nko^{\omega}k$

2.1.18 Underdifferentiated consonants

Since some pairs of PM consonants suffered similar mergers in the daughter languages, it is at times impossible to ascertain whether a given cognate set contained one or another consonant in Proto-Mataguayan. For example, the fricatives PM $*x$, $*\chi$, and $*h$ are most consistently distinguished in Maká, and when a Maká cognate is absent two or three alternatives must be reconstructed. We use the symbols $*X_{12}$ for “PM $*x$ or $*\chi$ ”; $*X_{13}$ for “PM $*x$ or $*h$ ”; $*X_{23}$ for “PM $*\chi$ or $*h$ ”, and $*X$ for “PM $*x$, $*\chi$, or $*h$ ”.

The following examples illustrate the reconstruction of PM $*X_{12}$ (for “ $*x$ or $*\chi$ ”) in codas. Note that PM $*x$ and $*\chi$ merge in codas in Nivaçle, Chorote, and Wichí (except in palatalizing environments in Nivaçle, after the vowel $*u$ in Chorote, and after the vowel $*o$ in Wichí).

- (932) PM $*\phiílâ(^?)X_{12}$ ‘pocote (*Solanum sp.*)’ > PCh $*hwilâh$ • PW $*x^{\omega}ilâ\chi$
- (933) PM $*k(^?)utsá(^?)X_{12} \sim *k(^?)utsé(^?)\chi$ ‘chágua (*Bromelia hieronymi*)’ > PCh $*k^{\omega}usáh$ • PW $*k^jutsá\chi$
- (934) PM $*kú^{\omega}X_{12}$ ‘sweat’ > Ni $-^{\omega}\beta-ku^{\omega}x$ • PW $*k^jux^{\omega}$
- (935) PM $*níltsa(^?)X_{12}$, $*níltsX_{13}a-ts$ ‘white-lipped peccary’ > PCh $*<ʔih>nílsah$, $*<ʔih>nílsa-s$ • PW $*nítsa\chi$, $*nítsa-s$
- (936) PM $*kpéna(^?)X_{12} \sim *kpána(^?)X_{12}$, $*kpénX_{13}a-ts \sim *kpánX_{13}a-ts$ ‘orphan’ > PCh $*kpénah$, $*kpéhna-s$ • PW $*k^jépna\chi$, $*k^jépna-s$
- (937) PM $*-q^{\omega}á(^?)X_{12}$ ‘tongue’ > PCh $*-q^{\omega}áh$ • PW $*-q^{\omega}á\chi$ ‘mouth’
- (938) PM $*tátsna(^?)X_{12} \sim *tátsne(^?)\chi$ ‘toad’ > PCh $*tásVnah$ • PW $*tátna\chi$
- (939) PM $*tkéna(^?)X_{12} \sim *tkána(^?)X_{12}$, $*tkénX_{13}a-ts \sim *tkánX_{13}a-ts$ ‘precipice; hill, mountain’ > PCh $*t^{\omega}kénah$, $*t^{\omega}kéhna-s$ • PW $*tk^jéna\chi$, $*tk^jénha-s$

2 Consonants

(940) PM **wkína*([?])*X*₁₂, **wkínX*₁₃*a*-*ts* ‘metal’ > PCh **w^okínah*, **w^okínha*-*s* • PW **k’ínaχ*, **k’ínha*-*ts*

(941) PM **ji[?]ǰá[?]X*₁₂ ‘jaguar’ > Ni *ji[?]ǰá[?]x* • PCh **ǰa[?]ǰáh* • PW **ha[?]ǰáχ*

The following examples illustrate the reconstruction of PM **X*₁₃ (for “**x* or **h*”) in onsets. Note that PM **x* and **h* merge in onsets in Chorote, Wichí, and – in non-palatalizing environments – in Nivaçle.

(942) PM **lǎjX*₂₃*VnǎX*₁₃*ǎ* ‘Azara’s night monkey’ > Ni *klǎjxenǎxǎ* • PCh **léhjanǎhá-ke[?]*

(943) PM **[ji]X*₁₃*án-ex* ‘to know’ > PCh **<[j]a>hán-eh* • PW **[ji]hán-eχ*

(944) PM **[ji]X*₁₃*o*([?]) ~ **[ji]X*₁₃*ó*([?]) ‘to go’ > Ni *[ji]xo[?]* • PCh **[ǰi]hó[?]* • PW **[ji]ho*([?]) ~ **[ji]hó*([?])

(945) PM **X*₁₃*ó[?]k* ‘palo santo (*Bulnesia sarmientoi*)’ > Ni *xo[?]k* • PCh **hók* • PW **hók^w*

(946) PM **X*₁₃*on-xa[?]χ*, **X*₁₃*on-xáh-aj^h* ‘night’ > Ni *<xon>fa[?]x*, *<xon>fa[?]x-aj* • PW **<hon>aχ*, **<hon>áh-aj^h*

(947) PM **X*₁₃*ó[?]t* ‘sandy place’ > Ni *xo[?]t* • PCh **hót* • PW **hót*

(948) PM **-X*₁₃*u[?]k*, **-X*₁₃*ú-j^h* ‘firewood’ > Ni *-xu[?]k*, *-xu-j* • PCh **(ǰítǎh)-huk* • PW **-huk^w*, **-hú-j<is>*

(949) PM **-X*₁₃*úsek* ~ **-X*₁₃*úsäk* ‘temperance’ > PCh **-húsek* • PW **-húseq*

(950) PM **[ji]X*₁₃*út* ‘to push’ > Ni *[ji]xut* • PCh **[ǰi]hút* • PW **[ji]hút*

(951) PM **(ǰa)X*₁₃*útsa*([?])*χ*, **(ǰa)X*₁₃*útsha*-*ts* ‘crested caracara’ > Ni *xutsax*, *xutsxa*-*s* • PCh **(ǰa)húsah*, **(ǰa)húsa*-*s* • PW **ǰahútsaχ*, **ǰahútsha*-*s*

(952) PM **ǰaX*₁₃*ǎje*([?])*χ* ‘mistol fruit’ > Ni *ǰaxǎjex* • PCh **ǰahǎjah* • PW **ǰahǎjaχ*

(953) PM **ǰaX*₁₃*ǎj-u[?]k*, **ǰaX*₁₃*ǎj-ku-j^h* ‘mistol tree’ > Ni *ǰaxǎj-uk*, *ǰaxǎj-ku-j* • PCh **ǰahǎj-uk*, **ǰahǎj-ku-j^h* • PW **ǰahǎj-uk^w*

The following examples illustrate the reconstruction of PM **X*₂₃ (for “**χ* or **h*”).

(954) PM **lǎjX*₂₃*VnǎX*₁₃*ǎ* ‘Azara’s night monkey’ > Ni *klǎjxenǎxǎ* • PCh **léhjanǎhá-ke[?]*

(955) PM **ǎtsX*₂₃*a*([?]) (**-jek*) ‘girl’ > Ni *ǎtsxa* (-*jet/*) • PCh **hlúsa[?]* (**-jek*) • PW **ǎtsha*

- (956) PM $*...X_{23}a^?t$ ($*-its$) ‘earth’ > Ni $<kots>xa^?t$, $<kots>xat-is$ • PCh $*<?a>h<n>át$
 ~ $*<?á>h<n>át$ ($*-es$) • PW $*<hon>hat$, $*<hon>hát-es$

Finally, in some cases it is impossible to choose between PM $*k$ and $*q$. This happens when the consonant in question occurs in the coda position following PM $*á$, and diagnostic cognates in Maká and Wichí are lacking.

- (957) PM $*^?wósá(?)q$ ~ $*^?wósá(?)k$ ‘butterfly’ > Ni $\betaósák$ • PCh $*^?wósák$

2.2 Glottalized onsets

All Mataguanan languages have a series of glottalized stops, and at least Chorote and Wichí have a series of glottalized sonorants (Gutiérrez & Nercesian 2021). These are usually granted phonemic status in synchronic descriptions (for a dissenting view, see Claesson 1994; the issue is further discussed in §2.2.4), and their occurrence is restricted to onsets. In addition, Nivaçle has sequences of the type “ $? +$ sonorant” at the surface, which are usually analyzed as consonant clusters; however, these sequences display phonotactic properties typical of phonemes, such as the possibility to occur at the left edge of a morpheme, as in $/-?βan/$ ‘to see’, or after a consonant, as in $/-s?βun/$ ‘to like, to love’ (Gutiérrez forthcoming). In our notation, we symbolize such sequences as preglottalized sonorants (e.g. Ni $-^?βan$ ‘to see’, $-s^?βun$ ‘to like, to love’).

Across the Mataguanan language family, glottalized stops are typically articulated as ejective plosives or affricates; for acoustic studies, see Gutiérrez & Espinosa (2023) for Nivaçle and Nercesian (2014: 79–82) for Lower Bermejeño Wichí. Chorote is an exception, where glottalized stops surface as preglottalized after stressed syllables (Carol 2014a: 80–81). In addition, in some Wichí dialects glottalized stops have been described as implosive (§9.2.1.6). By contrast, glottalized sonorants typically surface as preglottalized in the onset position in the contemporary Mataguanan languages. This is in agreement with the cross-linguistic timing tendency identified by Gordon & Ladefoged (2001: 394–396), among others, whereby prevocalic glottalized sonorants tend to realize their non-modal phonation early in the consonant in order to enhance the acoustic cues associated with the consonant-to-vowel transition.

For Proto-Mataguanan, we reconstruct a series of glottalized stops (PM $*p^?$, $*t^?$, $*ts^?$, $*k^?$, $*q^?$) and a series of glottalized sonorants (PM $*^?w$, $*^?l$, $*^?j$, $*^?m$, $*^?n$), in addition to a series of glottalized fricatives (at least PM $*\phi^?$, $*t^?$, $*s^?$). As we will see, there is ample evidence that some of these segments result from a combination of a plain (non-glottalized) consonant and a glottal stop.

2.2.1 Glottalized stops

Glottalized stops are preserved in all daughter languages, where their reflexes are typically realized as ejective (less frequently as preglottalized or implosive) stops. Other than for the [constricted glottis] feature, they evolve just like their plain counterparts. In just one cognate set, Mk *q* shows up instead of the expected **k*' (961). When two consecutive syllables have glottalized stops as their onsets, Chorote and Wichí deglottalize the onset of the first syllable, as in (959) and – with further irregularities regarding the place of articulation – (984).⁵

- (958) PM **jít'áʔ*, **jít'á-l* 'vulture' > Ni *jít'áʔ(-k)* • PCh **ʔat'áʔ(*-l)* • PW **hat'áʔ(?)*
- (959) PM **k'ék'eh* 'monk parakeet' > Ni *tʃetʃe* • PCh **kék'eh* • PW **k'ék'j'e*
- (960) PM **k'alxó(*-ts)* 'armadillo sp.' > Mk *k'olóʔx* • Ni *k'akxo(-s)* • PCh **k'ihlóʔ(*-s)* • PW **k'j'anhóh*
- (961) PM **-k'áxeʔ(*-l)* 'arrow' > Mk *-qaxiʔ(-l)* • Ni *-k'áxe* • PCh **-k'áheʔ(*-l)* • PW **-k'j'áhe(*-l^h)*
- (962) PM **-k'álʔah* 'spouse' > Ni *-tʃakʔa* • PCh **-k'élhwah* • PW **-k'j'éx^wah*
- (963) PM **[ji]k'án* 'to stretch out' > Ni *[ji]tʃan* • PCh **[ʔi]k'én-APPL* • PW **[hi]k'j'én*
- (964) PM **[ji]k'ásaʔχ* ~ **[ji]k'áseʔχ* 'to divide' > Mk *[j]<a>k'esaʔχ* • PCh **[ʔi]k'ésah* • PW **[hi]k'j'ésaχ*
- (965) PM **-k'inix*, **-k'inxi-ts* 'younger brother' > Mk *-k'inix* • Ni *-tʃinif* • PCh **-k'inih*, **-k'ihni-s* • PW **-k'j'inix*, **-k'j'inhi-s*
- (966) PM **-k'inxáʔ?* ~ **-k'inxáʔ(*-wot)* 'younger sister' > Mk *-k'inxáʔ?* ~ **-k'inxáʔ* • Ni *-tʃinxá(-βot)* • PCh **-k'ihnáʔ(*-wot)* • PW **-k'j'inhá*
- (967) PM **-k'o*, **-k'ó-l* 'bottom' > Ni *-k'oʔ(-k)* • PCh **-k'óʔ* • PW **-k'j'o*, **-k'j'ó-l^h*
- (968) PM **-k'u*, **-k'ú-l* 'horn, club' > Mk *-k'uʔ(-l)* • Ni *-k'uʔ(-k)* • PCh **-k'úʔ(*-l)* • PW **-k'j'u*, **-k'j'ú-l^h*
- (969) PM **k'uj* ~ **k'új* 'cold' > Mk *k'wi / k'uj-* • Ni *k'uj* • PCh **k'újʔ*
- (970) PM **k'utX₂₃áʔn*, **k'utX₂₃án-its* 'thorn' > Ni *k'utxaʔn*, *k'utxan-is* • PCh **k'utáʔn*, **k'után-is* • PW **k'j'utháʔn*, **k'j'uthán-is*
- (971) PM **(-)k'útsaʔχ*, **(-)k'útsha-ts* 'old' > Mk *k'utsaʔχ*, *k'utshe-ts* • Ni *k'utsaʔx*, *k'utsxa-s* • PCh **-k'úсах*, **-k'úса-s* • PW **-k'j'útsaχ*

⁵We owe this observation to an anonymous reviewer, who questioned our earlier attempt to account for this sound correspondence by positing irregular sound changes.

- (972) PM **ŋk'a* 'new' > Mk *i'nk'a* • Ni *nitʰa* • PCh **ŋk'áʔ* • PW **nekʰ'a* ~ **nékʰ'a* ~ **nekʰ'e* ~ **nékʰ'e*
- (973) PM **[ji]p'o(ʔ)* ~ **[ji]ɸ'o(ʔ)* ~ **[ji]p'ó(ʔ)* ~ **[ji]ɸ'ó(ʔ)* 'to cover' > Ni *[ji]p'o* • PCh **[ʔi]p'ó-APPL* • PW **[hi]p'ó-APPL*
- (974) PM **-p'oʔt* 'lid' > Mk *-p'ot<oʔ>* • Ni *-p'oʔt* • PCh **-p'ót* • PW **-p'ot*
- (975) PM **sát'a(ʔ)(t)s* 'parakeet' > Ni *sat'as* • PCh **sát'as* • PW **sát'as*
- (976) PM **-sáq'álʰ*, **-sáq'ál-its* 'soul, spirit' > Mk (?) *-si'nq'al (-its)* • Ni *-sák'ákl<it>* • PCh **-sáq'álʰ*, **-sáq'ál-is*
- (977) PM **(-)tak'o(h)* ~ **(-)täk'o(h)* 'kind of utensil' > Mk *tok'o* • Ni *-tak'o-tax*
- (978) PM **-t'é-l* 'tears' > Mk *-t'i-l* • Ni *-t'e<k̄l>-is* • PCh **-t'é<l>-is*
- (979) PM **-t'ij* ~ **-t'ij* 'to move' > Ni *[βa]t'ij* • PCh **[ʔi]t'ijʔ*
- (980) PM **-t'ileʔ* (*-jʰ) 'rheum' > Mk *-t'iliʔ(-j)* • Ni *-t'ik̄le(-j)* • PCh **-t'ile-*
- (981) PM **t'isáʔ* ~ **t'isáʔ* (*-l) 'cream-backed woodpecker (*Campephilus leucopogon*)' > Mk *t'isaʔ(-l)* • Ni *t'isáʔ(-k)* • PCh **t'isáʔ(-l)*
- (982) PM **-t'ox* ~ **-t'óx* 'aunt' > Ni *-t'ox* • PCh **-<i>t'óh* • PW **-<wi>t'ox*
- (983) PM **t'ún* 'hard' > Mk *t'un* • Ni *t'un* • PCh **t'ún* • PW **t'ún*
- (984) PM **ts'áts'ih*, **ts'áts'i-l* 'rufous hornero' > Mk *ts'its'i(-l)* • Ni *ts'ats'i(-k)* • PCh **sát'ih* • PW **táts'i*
- (985) PM **wák'a-juʔk*, **wák'a-jku-jʰ* 'guayacán' > Mk *wek'e-juʔk*, *wek'e-jkw-i* • PCh **wák'a-juk*, **wák'a-jku-jʰ* • PW **wákʰ'a-jukʷ*, **wákʰ'a-kʰu-jʰ*
- (986) PM **-xájk'u(ʔ)* (*-l) 'egg' > Ni *-fajk'u(-k)* • PCh 3 **hl-éjk'u(ʔ)* (*-l) • PW **-ʔ-ikʰ'u* (*-lʰ)
- (987) PM **ʔásk'ála(ʔ)χ* 'widower' > Ni *ʔástʰak̄lax* • PCh **ʔásk'élah*

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaê, Chorote and Wichí), whose PM age is thus questionable.

- (988) PM **-k'aló(ʔ)* (*-ts) 'cheek' > PCh **-k'alóʔ* (*-s) • PW **-kʰ'álo* (*-s)
- (989) PM **[t]k'an* ~ **[t]k'än* 'to obey' > Mk *[te]k'en* 'to respect' • Ni *[t(a)]tʰan*
- (990) PM **[t]k'ij* 'to spit' > Mk *[te]k'ij* • Ni *[t]<'a>k'ij*
- (991) PM **-k'óX₂₃te(ʔ)* (*-jʰ) 'ear' > PCh **-k'óoteʔ* (*-jʰ) • PW **-kʰ'óte* (*-jʰ)
- (992) PM **k'unhate-nhaʔ* 'pacu fish' > Mk *<i>k'unheti-nheʔ* (-j) • Ni *k'unxate<nxa>* (-j)

2 Consonants

- (993) PM *-pák'o 'heel' > PCh *-pók'o? • PW *-pák'j'o
 (994) PM *-q'á(?)X₁₂ 'tongue' > PCh *-q'áh • PW *-q'áh 'mouth'
 (995) PM *t'áj 'to sound, to have voice' > Mk t'aj • Ni t'áj
 (996) PM *[ji]t'ex 'to say' > Mk [ji]t'ix • Ni [ji]t'ef
 (997) PM *wósak'V(?)t 'red-crested cardinal' > PCh *wós'k'at • PW *wósak'it
 ~ *wósak'ut
 (998) PM *ʔat'e(?)t)s ~ *ʔat'ä(?)t)s 'aloja drink' > PCh *ʔat'és • PW *hat'és
 (999) PM *[t]at'o 'to yawn' > Mk [t]ot'o-kij • Ni [t]at'o
 (1000) PM **[j]óp'ale(?) 'to hiccup' > Ni [j]op'akle / -ʔop'akle 'to choke' • PCh
 *[j]óp'ale? • PW *[j]óp'le

2.2.2 Glottalized sonorants

Glottalized sonorants are best preserved in Chorote and Wichí; in Maká and Nivaçle, they surface as sequences of the type “ʔ + sonorant” (ʔC in our notation) except word-initially, where they merge with the respective plain sonorants.

Some examples follow; note that in Wichí the glottalization irregularly migrated to another sonorant in (1016) and disappeared completely in (1026) (if the word belongs to the cognate set in question at all).

- (1001) PM *[ji]fá'já ~ *fá'já 'to fly' > Ni [ji]fá'já • PCh *[ʔi]hwé'já? • PW
 *x^we'já ~ *w- ~ *-i-
 (1002) PM *fi'jät 'cold weather, south wind' > Ni fi'jat • PCh *hwi'jét • PW
 *x^{wi}'jét
 (1003) PM *ji'já'X₁₂ 'jaguar' > Ni ji'já'x • PCh *ʔa'jáh • PW *ha'jáχ
 (1004) PM *ji'lá?, *ji'lá-j^h 'tree' > Ni ji'klá? (-j) • PCh *ʔa'lá? (*-j^h) • PW *ha'lá,
 *ha'lá-j^h
 (1005) PM *lájX₂₃VnâX₁₃â 'Azara's night monkey' > Ni klajxenâxâ • PCh
 *lêhjanâhâ-ke?
 (1006) PM *-ʔli'x, *-ʔlix-áj^h 'language, word' > Mk -ʔlix<e?> • Ni -ʔkli'f, -ʔklif-aj
 • PCh *-lîh, *-ʔlih-áj^h
 (1007) PM *-ʔmat 'negative quality, physical defect' > Mk -ʔmet • Ni -ʔmat •
 PCh *-ʔmat

- (1008) PM *^ʔmók (*-its) ‘zorzal bird (*Turdus* sp.)’ > Mk *mok* (-its) • Ni *mok* (-is) • PCh *^ʔmók (*-is)
- (1009) PM *[ji]nxi^ʔwän ‘to smell’ > Mk [ji]nxi^ʔwen • PCh *[ʔi]hni^ʔwen
- (1010) PM *^ʔnaʔ ‘this.M (within one’s hands’ reach)’ > Mk *ha-^ʔneʔ* • Ni *naʔ* • PCh *^ʔnáʔ
- (1011) PM *^ʔnáʔtu(h), *^ʔnáʔtu-ts ‘day, world’ > Mk *neʔtu* (-ts) • Ni *naʔtu* (-s) • PCh *^ʔnáhl<ekis> ~ *^ʔnáhl<ekes> ‘midday’
- (1012) PM *(-)^ʔnáʔji^ʔx, *(-)^ʔnáʔjx-aj^h ‘path’ > Ni *náʔji^ʔ*, (-)^ʔnáʔj-aj / -^ʔnáʔji^ʔ • PCh *(-)^ʔnáʔjih, *(-)^ʔnáʔj-aj^h • PW *(-)^ʔnáʔjiχ, *(-)^ʔnáʔjx-aj^h
- (1013) PM *[ji]pé^ʔj-aʔ ‘to hear’ > Mk [ji]pi^ʔj-eʔ • Ni [ji]pe^ʔj-a • PCh *[ʔi]pé^ʔj-aʔ
- (1014) PM *[ji]s^ʔwun ~ *[ji]s^ʔwún ‘to like, to love’ > Mk [ji]su^ʔun • Ni [ji]s^ʔβun • PCh *[ʔi]s^ʔʔún
- (1015) PM *^ʔwátshan ~ *^ʔwátšxan ‘to be healthy, alive’ > Ni *βatsxan* • PCh *^ʔwása^ʔn • PW *^ʔwátshan
- (1016) PM *^ʔwánXáʔtáχ, *^ʔwánXáʔtá-ts ‘rhea’ > Mk *waatáχ* • Ni *βánxáʔtáx*, *βánxáʔtá-s* • PCh *^ʔwánhláʔh, *^ʔwánhlá-s • PW *wá^ʔntáχ, *wá^ʔntá-s
- (1017) PM *^ʔwále^ʔk ‘to walk’ > Mk -<i>^ʔwelki-^ʔmet ‘to limp’ • Ni *βaklé^ʔtʃ* • PCh *[ʔi]^ʔwélek • PW *^ʔwelq
- (1018) PM *[ji]^ʔwán ‘to see’ > Mk [ji]^ʔwen • Ni [ji]^ʔβan • PCh *[ʔi]^ʔwén • PW *[hi]^ʔwén
- (1019) PM *-^ʔwät ‘place’ > Mk -^ʔwet • Ni -^ʔβat • PCh *-^ʔwét • PW *-^ʔwet
- (1020) PM *-^ʔwłiʔ ~ *-^ʔwłiʔ, *-^ʔwłi-ts ‘rib’ > Mk -^ʔwetiʔ (-ts) • Ni -^ʔβłi / -βłiʔ (-s) • PCh *-hlí<s>
- (1021) PM *-^ʔwó, *-^ʔwó-l ‘neck’ > Mk -wo<nxeʔ> • Ni -^ʔβoʔ (-k) • PCh *-^ʔwóʔ (*-l) • PW *-^ʔwó, *-^ʔwó-l^h
- (1022) PM *(-)^ʔwo^ʔj ‘blood’ > Ni *βo^ʔj* / -^ʔβoj-ej • PCh *(-)^ʔwój-is • PW *^ʔwoj-ís / *-^ʔwój-is
- (1023) PM *^ʔwósá(?)q ~ *^ʔwósá(?)k ‘butterfly’ > Ni *βosák* • PCh *^ʔwósák
- (1024) PM *^ʔwV^ʔʔ ~ *^ʔwV^ʔʔ ‘to climb’ > Mk *we^ʔʔ* • Ni *βá^ʔʔ* • PCh *[ʔi]^ʔwúʔ • PW *[t]^ʔwuʔ ~ *[t]^ʔwúʔ
- (1025) PM *-xá^ʔn(eʔ) ‘verbal plural (suffix)’ > Ni -*fa^ʔneʔ* / -*xa^ʔneʔ* • PCh *-*he^ʔn(eʔ)* • PW *-*he^ʔn*

2 Consonants

- (1026) PM *ʔáʔlá-taχ, *ʔáʔlá-ta-s ‘Argentine boa’ > Ni ʔáʔklá-tax, ʔáʔklá-ta-s
 • PCh *ʔáʔlá<ta> ~ *ʔáʔlá<ta>, *ʔáʔlá<ta>-s ~ *ʔáʔlá<ta>-s • PW
 (?) *lá<ta>χ

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaê, Chorote and Wichí), whose PM age is thus questionable.

- (1027) PM *káʔlah, *káʔla-ts ‘lizard’ > PCh *káʔlah, *káʔla-s • PW *kʲáʔlah, *kʲáʔla-s
- (1028) PM *-tíʔwteʔ ‘heart’ > Mk -titiʔ • Ni -tíʔte
- (1029) PM *páʔjih ‘frog (*Leptodactylus* sp.)’ > PCh *páʔjih • PW *páʔjih
- (1030) PM *ʔwá(?)x, *ʔwáx-ajʰ ‘stagnant water’ > PCh *hl-<a>ʔwáh (*-ajʰ) • PW *ʔwáχ, *ʔwáh-ajʰ
- (1031) PM *ʔwéʔt=aʔ ‘one’ > Mk <e>wiʔt-eʔ • Ni βéʔt<a> / -ʔβéʔt<a>
- (1032) PM *-ʔwóle(?) ‘leaf, hair, feather’ > PCh *-ʔwóleʔ • PW *-ʔwóle
- (1033) PM *-ʔwu(?)j ‘clothes, blanket’ > PCh *-ʔwújʔ • PW *-ʔwuj

2.2.3 Glottalized fricatives

Synchronically, phonemic glottalized fricatives are not attested in any Mataguyan language. In Maká, Gerzenstein (1994: 46, 67–68) documents sequences of a fricative and a glottal stop, of which at least Mk *fʔ* and *sʔ* may occur within a morpheme: *lefʔef* ‘ant’, *sʔotot* ‘tailless’. Other possible combinations are Mk *tʔ*, which occurs at morpheme boundaries only (as in *tʔiʔ* ‘its liquid, its juice’), and the exceedingly rare Mk *xʔ*. At least Mk *fʔ* and *sʔ* correspond to glottalized stops *pʔ* and *tsʔ*, respectively, in other Mataguyan languages; in this book we tentatively treat them as single segments and transcribe them as Mk *fʰ*, *sʰ* in our notation. We suggest that they go back to PM **ϕʰ*, **sʰ* (possibly articulated as ejective fricatives), which remained fricatives in Maká but merged with PM **pʰ*, **tsʰ* as (**pʰ*), (**tsʰ*) in all other languages.

- (1034) PM *(-)ϕʰelxVtséχ, *(-)ϕʰelxVtsé-ts ‘poor’ > Mk -fʰilxetsaχ, -fʰilxetsi-ts • PCh *pʰilusáh, *pʰihlusé-s • PW *pʰelítsaχ, *pʰelítse-s
- (1035) PM *-ϕʰi(?) ‘foot’ > Mk -fʰiʔ • Ni -pʰi-kʰo ‘heel’
- (1036) PM *(-)ϕʰok ~ *(-)ϕʰók (*-its) ‘arrow’ > Mk (-)fʰok (-its) • Ni (-)pʰok (-is)
- (1037) PM *sʰám (*-its) ‘frog sp.’ > Mk sʰam-sʰam (-its) • PCh *tsʰám (*-its)

There is extra evidence that clearly shows that other Mataguayan languages (that is, Nivaçle, Chorote, and Wichí) have eliminated glottalized fricatives by means of converting them to homorganic glottalized stops. In addition to the sound changes PM $*\phi > (*p)$, PM $*s > (*ts)$, these languages also underwent the sound change PM $*t > (*t')$. Judging by the non-existence of words with a tautomorphic t' in Maká, the occurrence of PM $*t'$ must have been restricted to morpheme boundaries in the protolanguage, notably when a $*ʔ$ -initial stem combines with the third-person prefix $*t-$.

- (1038) PM $*t-'a\acute{t}\acute{a}(?)$ 'fat' > PCh $*t-'ahl\acute{a}ʔ$ • PW $*t-'a\acute{t}\acute{a}(?)$
- (1039) PM $*t-'a(?)q$ 'its rope, its cord' > PCh $*t-'\acute{a}k$ • PW $*t-'aq$
- (1040) PM $*t-'\acute{a}X_{23}te(?)$ ($*-j^h$) 'her breast' > Ni $t-'axte$ ($-j$) • PCh $*t-'\acute{a}hate?$ ($*-j^h$) • PW $*t-'\acute{a}te$ ($*-j^h$)
- (1041) PM $*t-'\acute{a}x$ 'skin, bark' > Mk $t-'ax$ • Ni $t-'\acute{a}x$ • PCh $*t-'\acute{a}h$ • PW $*t-'\acute{a}\chi$
- (1042) PM $*t-'\acute{a}s\chi a^n$, $*t-'\acute{a}s\chi \acute{a}n$ -its 'meat' > Mk $t-'ese^n$, $t-'esen$ -its • Ni $t-'asxa^n$, $t-'asxan$ -is • PCh $*t-'is\acute{a}^n$, $*t-'is\acute{a}n$ -is • PW $*t-'isa^n$, $*t-'is\acute{a}n$ -is
- (1043) PM $*t-'i$ ($*-l$) 'liquid, juice' > Mk $t-'iʔ$ ($-l$) • Ni $t-'iʔ$ ($-k$) • PCh $*t-'iʔ$ ($*-l$) • PW $*t-'i$ ($*-l^h$)
- (1044) PM $*t-'\acute{u}tu(?)$ 'her/his urine' > Ni $t-'utu$ • PCh $*t-'\acute{u}hluʔ$ • PW $*t-'\acute{u}tu$

The underlying form of the third-person prefix is undoubtedly PM $*t-$, as seen in stems that begin with a vowel (or with a consonant other than a glottal stop; see §2.6.1).

- (1045) PM $*t-\acute{a}(j^h)-xi?$ ($*-l$) 'her/his mouth' > Mk $t-e<xi?>$ ($-l$) • Ni $t-a<fi>$ ($-k$) • PCh (?) $*hl-\acute{a}<aj?>$ • PW $t-\acute{a}j$ -hi ($*-l^h$)
- (1046) PM $*t-\acute{a}w\acute{a}(?)$ 'its flower' > Ni $t-a\beta\acute{a}$ • PCh $*hl-\acute{a}woʔ$ • PW $*t-\acute{a}wo$
- (1047) PM $*t-\acute{a}me(?)t$ / $t-\acute{a}mte$ - 'her/his word' > PCh $*hl-\acute{a}mt-$ • PW $*t-\acute{a}met$, $t-\acute{a}mte$ -s
- (1048) PM $*t-\acute{a}ni^s$ 'its stinger' > Mk $t-ani^s$ • Ni $t-\acute{a}nis$ • PCh $*hl-\acute{a}nis$ • PW (?) $*t-\acute{a}^?ni$
- (1049) PM $*t-\acute{a}q$ 'its food' > Mk $t-aq$ • Ni $t-\acute{a}k$ • PCh $*hl-\acute{a}k$ • PW $*t-\acute{a}q$
- (1050) PM $*t-\acute{a}^s$ 'her/his son' > Mk $t-a^s$ • Ni $t-\acute{a}^s$ • PCh $*hl-\acute{a}^s$ • PW $*t-\acute{a}^s$
- (1051) PM $*t-\acute{a}se?$ 'her/his daughter' > Mk $t-asiʔ$ • Ni $t-\acute{a}se$ • PCh $*hl-\acute{a}se?$ • PW $*t-\acute{a}se$
- (1052) PM $*t-\acute{a}^?t$ 'her/his drink' > Ni $t-\acute{a}^?t$ • PCh $*hl-\acute{a}^?t$ • PW $*t-\acute{a}^?t$

2 Consonants

- (1053) PM **ɬ-áte(?)* (*-j^h) ‘her/his jar’ > PCh **hl-áte?* (*-j^h) • PW **<xj>áte* (*-j^h)
- (1054) PM **ɬ-äφ* ‘its wing’ > Mk *ɬ-ef* • Ni *ɬ-aφ* • PW **ɬ-ex^w*
- (1055) PM **ɬ-ǎʔj* ‘yica bag’ > Ni *ɬ-aʔj* • PCh **hl-éj?* • PW **ɬ-éj*
- (1056) PM **ɬ-e* ‘its thorn’ > Mk *ɬ-i?* • Ni *ɬ-e?* • PCh **hl-é?* • PW **ɬ-e*
- (1057) PM **ɬ-éj* ‘her/his name’ > Mk *ɬ-ij* • Ni *ɬ-ej* • PCh **hl-éj?* • PW **ɬ-éj*
- (1058) PM **ɬ-éle(?)* ~ **ɬ-ǎle(?)* (*-j^h) ‘its inhabitant, inner’ > PCh **hl-éle?* (*-j^h) ‘its inhabitant, her/his intestine’ • PW **ɬ-éle* (*-j^h)
- (1059) PM **ɬ-í(t)s’i(?)* (*-l) ‘resin, sap’ > Ni *ɬ-its’i* (-k) • PCh **hl-íts’i?* (*-l) • PW **ɬ-íts’i*
- (1060) PM **ɬ-ó* (*-l) ‘his penis’ > Ni *ɬ-o?* (-k) • PCh **hl-ól?* (*-l) • PW **ɬ-ó* (*-l^h)
- (1061) PM **ɬ-ól?* (*-j^h) ‘its seed’ > Mk *ɬ-o?* (-j) • PCh **hl-ól?* • PW **ɬ-ól?* (*-j^h)
- (1062) PM **ɬ-ú^p*, **-úp-its* ‘its nest’ > Mk *ɬ-up* (-its) • Ni *ɬ-u^p*, *-up-is* • PCh **hl-úp* (*-is) • PW **ɬ-úp* (*-is)

As a result of the sound change PM **ɬ* > (**t*), Nivačle, Chorote, and Wichí now display a morphophonological rule which converts the underlying sequence /ɬ+ʔ/ or /hl+ʔ/ into *t*’ (rather than *ɬ*’, as in Maká). The rule is no longer entirely productive in the contemporary languages. In Nivačle, the sequence /ɬʔ/ may occur within a morpheme, as in *fniɬʔǎ* ‘lizard (*Teius teyou*)’. In Chorote, a combination of /hl/ and /ʔ/ at the stem–suffix/enclitic boundary results in *h’l*, as in Ijw /*táhl+ʔe*/ → *táh.ʔle?* ‘exits from’, often pronounced with an intrusive echo vowel (see §8.1.1.3), i.e., [táhəʔleʔ]. In Wichí, *ɬ* and *ʔ* suffer no changes at the morpheme boundaries at least in ʼWeenhayek, as in *tǎɬ-ʔúx^w=eh* ‘comes from the riverside’.

We have until now seen that Proto-Mataguyan must have had **φ*’ and **s*’ (occurring within morphemes) and PM **ɬ*’ (occurring at morpheme boundaries only). The possibility of reconstructing **x*’ cannot be ruled out at this time, since *x*’ does occur morpheme-internally in Maká; we would expect it to correspond to *k*(*i*)’ in other Mataguyan languages, though no clear cases have been identified thus far.⁶ We have found no evidence for reconstructing a glottalized uvular fricative **χ*’ in Proto-Mataguyan. The glottal fricative (or approximant) **h*, of course, also lacks a glottalized equivalent.

⁶In Maká, *x*’ has been attested in only one lexeme, *ts’ix’ix* (-its) ‘mid-sized bee (gray, stings strongly, makes a hanging nest, produces small amounts of edible honey)’ (Gerzenstein 1999: 352).

In the following cognate sets, a cognate in Maká is lacking, and it is therefore impossible to determine whether they should be reconstructed with a glottalized stop or fricative in Proto-Mataguayan.

- (1063) PM **n-ap'u* ~ **n-aφ'u* (~ **-á-* ~ **-ú*) 'to lick' > Ni *n-ap'u* • PCh **[ʔi]<n>áp'u?* • PW **<n>ap'u* ~ **<n>áp'u* ~ **<n>ap'úh*
- (1064) PM **[j]áp'ä(ʔ)ɬ* ~ **[j]áφ'ä(ʔ)ɬ* 'to burn' > Ni *[j]ap'aɬ* • PCh **[j]áp'eɬ* • PW **[j]áp'eɬ*
- (1065) PM **-í(t)s'í(ʔ) (*-l)* 'resin, sap' > Ni *-its'i (-k)* • PCh 3 **hl-íts'i?* (**-l*) • PW **-ɬ-íts'i*
- (1066) PM **láp'ih* ~ **láφ'ih* 'snail' > Ni *kłáp'i* • PCh **láp'ih*
- (1067) PM **-p'o'k* ~ **-φ'o'k* 'fence' > Ni *-p'o'k* • PCh **-p'ók* • PW **-p'ok^w*
- (1068) PM **-w(t)s'é (*-l)* 'belly' > Ni *-βts'e (-k)* • PCh **-ts'é?* (**-l*) • PW **-ts'é (*-l^b)*
- (1069) PM **ʔáp'a(ʔ)χ* ~ **ʔáφ'a(ʔ)χ* 'jararaca' > Ni *ʔap'ax* • PCh **ʔáp'ah*

The same situation is observed in etymologies with a limited distribution (Chorote and Wichí), whose PM age is thus questionable.

- (1070) PM **[ʔi]φá(t)s'un* 'to spit' > PCh **[ʔi]hwáts'un-APPL* • PW **[ʔi]x^wáts'un*
- (1071) PM **[ji](t)s'u(ʔ)* 'to suck' > PCh **[ʔi]ts'ú-APPL* • PW **[hi]ts'u(ʔ)*
- (1072) PM **wóp'ih* ~ **wóφ'ih* [?] ~ **móp'ih* ~ **móφ'ih* 'white egret' > PCh **wóp'ih* • PW **móp'i*

2.2.4 Status of glottalized consonants

Kehrein & Golston (2004) show that a contrast between a postglottalized consonant, a preglottalized consonant, and a sequence of a consonant and a /ʔ/ (in any order) is impossible within an onset or a coda in any language, suggesting that outputs such as [ʔm] or [tʰ] can be modeled in a variety of ways (i.e., by positing glottalized segments, sequences of a modal segment and a /ʔ/, or a prosodic feature [constricted glottis]). Throughout this book, we follow Gerzenstein (1994), Nercesian (2014), Carol (2014a), and Gutiérrez (2015b) in analyzing glottalized onsets as complex segments rather than clusters of the type /Cʔ/ or /ʔC/. The two-segment analysis, posited by Claesson (1994: 28–30) for 'Weenhayek, assumes that glottalized consonants are sequences of underlying plain consonants and /ʔ/. This could technically also be applied to Proto-Mataguayan, which otherwise allows complex onsets. A third possibility, following Kehrein & Golston's (2004)

2 Consonants

reasoning, would be to consider that /ʔ/ and glottalization could be a property of the onset rather than of a given segment; that is, these elements could be associated with a laryngeal node (unordered with respect to the segments) dominated directly by the onset. The choice between these possibilities is a theory-internal one.

Synchronically, in all Mataguayan languages glottalized consonants may result when a plain consonant (stop, sonorant, or even fricative) coalesces with a heteromorphemic glottal stop. This has been described for Nivaçle by Gutiérrez (2015b: 29) and Campbell et al. (2020: 57), who dub the phenomenon in question SECONDARY GLOTTALIZATION, for Iyojwa'aja' by Carol (2014a: 78), for 'Weenhayek by Claesson (1994: 30), among others. (1073)–(1076) illustrate this for stops.

- (1073) Nivaçle (Gutiérrez 2015b: 29)
x-åk-ʔín [xɑk'in]
1SG.ACT-go_away-IPFV
'I am leaving'
- (1074) Iyojwa'aja' (Carol 2014a: 77–78)
- a. t-ʔú-hat-ah-hen [t'ohwatahaʔn]
IMPRS-wake_up-CAUS-IMPRS/1PL-HEN
'someone wakes her/him up'
- b. i-ʔwét-ʔe [ʔi'ʔwit'eʔ]
1SG-place-LOC
'at my place'
- (1075) 'Weenhayek (Claesson 1994: 30)
ʔimák-ʔis-hitʔah [ʔima:ʕisiʔah]
thing-good-NEG
'it is insignificant'
- (1076) Lower Bermejeño Wichí (Nercesian 2014: 239)
∅-t-ʔeq [t'ek]
3-T-eat
's/he eats'

As for fricatives, the process in question is less productive, but still occurs at the prefix–root boundary (1077)–(1079).

- (1077) Nivaçle (Seelwische 2016: 139)
- a. x-ʔi's [k'iʔis]
1SG.ACT-write
'I write'
 - b. ʔ-ʔi's [t'iʔis]
2.ACT-write
'you write'
- (1078) Iyojwa'aja' (Carol 2014a: 78, 91)
- a. hl-ʔáh [t'ah]
3.POSS-skin/bark
'its skin/bark'
 - b. s-ʔú-hat-hen [ts'ohwateʔn]
1SG.INACT-wake_up-CAUS-HEN
'you/s/he wake(s) me up'
 - c. s-ʔahán-eh [ts'a'hane]
1SG.INACT-know-APPL
'I know'
 - d. s-ʔáhwéhl [ts'a'hwel]
1SG.INACT-be_ashamed
'I am ashamed'
- (1079) 'Weenhayek (Claesson 2016: 96)
- a. ʔ-ʔisa'n [t'i'sanʔ]
3.POSS-meat/flesh
'its meat/flesh'

Finally, coalescence of sonorants with a glottal stop has been described for Chorote, and traces of this process are found in Nivaçle and Wichí. Phonetically, an underlying sequence of a sonorant and a glottal stop yields a preglottalized sonorant in Chorote, analyzed as a two-phase segment by Carol (2014a: 81).⁷

⁷If one adopts a two-segment analysis for glottalized sonorants, the phenomenon in question should be viewed as an instance of metathesis. Throughout this book, glottalized sonorants are rather analyzed as complex segments.

2 Consonants

(1080) Iyojwa'aja' (Carol 2014a: 77–78)

- a. n-ʔót [ʔnɔt]
GNR-chest
'chest (indefinite possessor)'
- b. j-ʔál-hen [ʔjahleʔn]
3.ACT-die-PL
'they died'

In Nivaçle, the absolutizing prefix *t(i)n-* fuses with the stem-initial glottal stop as *tiʔn-*.

(1081) Nivaçle (Campbell et al. 2020: 159)

- a. t(i)n-ʔáx [tiʔnax]
GNR-skin
'leather strap'

In Wichí, at least the palatal approximant *j* systematically coalesces with a glottal stop in the verbs that take the prefix *j-* (allomorph of *ji-*).

(1082) Lower Bermejeño Wichí (Nercesian 2014: 237–238)

- a. ɲ-j-ʔax-ʔam [ɲʔjaxʔam]
1SG-I-hit-2SG.P
'I hit you'
- b. ɲ-j-ʔeɭ-jen ɲ-ɭ-os [ɲʔjeɭjen ɲʔlos]
1SG-I-urinate-CAUS 1SG-TH-son
'I make my son urinate'

(1083) ʔWeenhayek (Claesson 2016: 124, 128)

- a. Ø-j-ʔót [ʔjo:t]
3-I-hit-2SG.P
'I hit you'
- b. n(i)-ʔíl-a [ʔnĩ:laʔ]
3.NEG.IRR-die-NEG.IRR
'lest s/he die'

In light of these alternations, which were certainly active already in Proto-Mataguayan, one is tempted to ask whether all instances of glottalized consonants in Proto-Mataguayan must be synchronically analyzed as sequences of a

plain consonant and a glottal stop. The answer is negative at least for combinations of a sonorant and a glottal stop: both PM **lʔ* and **mʔ* were licit clusters in Proto-Mataguayan. No examples have been found for PM **nʔ*, **jʔ*, or **wʔ*.

- (1084) PM **-φǎlʔuʔ* (**-ts*) ‘son-in-law, brother-in-law’ > Mk *-feluʔ* (*-ts*) • Ni *-φaklʔu* (*-s*) ‘brother-in-law’ • PCh **-hwíluʔ* [?] *-hwéluʔ* (**-s*) ‘son-in-law’
- (1085) PM **túmʔa* ‘day’ > Ni *tumʔa-* • PCh **hlúmaʔ*
- (1086) PM **ʔúlʔáh*, **ʔúlʔá-ts* ‘dove’ > Ni *ʔuklʔá* (*-s*) • PCh **ʔúlʔáh*, **ʔúlʔá-s*
- (1087) PM **ʔámʔáh*, **ʔámʔá-ts* ‘rat’ > Ni *ʔamʔá* (*-s*) • PCh **ʔámʔah* ~ **ʔámʔáh*, **ʔámʔa-s* ~ **ʔámʔá-s* • PW **ʔáma*

Since contrasts such as /lʔ/ vs. /ʔl/ are predicted by Kehrein & Golston (2004) to be impossible within an onset or a coda, we conclude that PM **lʔ* and **mʔ* were heterosyllabic, and that the process transforming sequences of a plain consonant and a glottal stop into glottalized segments was not fully active in Proto-Mataguayan.

2.3 Preglottalized codas

Most complex codas in Proto-Mataguayan are of the type **ʔC/*.⁸ (In addition, there is evidence for reconstructing **ʔjh/* and **ʔlh/*, for which see §2.4.) We dub **ʔC/* codas “preglottalized” and represent them as **ʔC*. They are best preserved in Maká. In Nivaçle, they are preserved only in stressed syllables; in unstressed syllables, these codas are deglottalized, as discussed in §7.1.1.8. In Wichí, Manjui, and possibly Iyo’awujwa’, the preglottalized codas **ʔm*, **ʔn*, **ʔl* are preserved word-finally (the latter only in Manjui), whereas other preglottalized codas merge with their plain counterparts.⁹ In Iyojwa’aja’, all preglottalized codas merge with their

⁸In this book, we follow Gutiérrez’s (2016c) analysis of the Nivaçle reflexes of such codas as sequences of the type *ʔC/*. Alternatively, one could follow Kehrein & Golston’s (2004) idea, whereby glottalization in a coda is represented by means of the feature [constricted glottis] in the laryngeal node dominated directly by the coda. The choice between these possibilities is a theory-internal one.

⁹In ’Weenhayek, the reflexes of these codas are in fact articulated as postglottalized rather than preglottalized (Claesson 1994: 33–35). This is in line with well-known cross-linguistic tendency of word-final or preconsonantal glottalized sonorants to realize their creak toward the end of the sonorant, attributed by Gordon & Ladefoged (2001: 394–396) to the necessity to enhance the acoustic cues associated with the vowel-to-consonant transition. However, the glottalized sonorant codas are clearly preglottalized rather than postglottalized in Nivaçle and Chorote. In Golston & Kehrein’s (2013) terms, ’Weenhayek follows the so-called PROSODIC PATTERN, whereas Nivaçle and Chorote conform to the so-called ONSET PATTERN of laryngeal timing, both of which are cross-linguistically attested.

2 Consonants

plain counterparts. Already in Proto-Mataguayan, a process exists whereby preglottalized codas are deglottalized when the coda resyllabifies as the onset of the next syllable before certain types of affixes (for example, the plural form of **k'utX₂₃á'n* 'thorn' is reconstructed as **k'utX₂₃án-its*). Other affixes fail to trigger this process, however, as seen in PM **ji-pé'j-aʔ* 's/he hears'.

The following examples show that preglottalized obstruent codas are preserved as such in Maká and (in stressed syllables) in Nivačle, but merge with their plain counterparts in all other languages. One possible exception to this generalization is that PM **ʔ* may have regularly yielded PW **p* rather than **x^w*, even though only one example is known (1125). The unexpected loss of preglottalization in Maká is seen in (1094), (1127), and (1133).

- (1088) PM **-aje'k* ~ **-ajé'k* 'honey comb' > Ni *-aje'tf* • PCh **-q-ájek*
- (1089) PM **-á't*, **-át-its* 'drink' > Ni *-á't*, *-át-is* • PCh **-át* (*-es) • PW **-t-át*
- (1090) PM **-á's* 'son' > Mk *-a's* • Ni *-á's* • PCh **-ás* • PW **-t-ás*
- (1091) PM **ʔa't* ~ **ʔá't* 'fire' > Mk *fe't* • PCh **hwát*
- (1092) PM **[ji]ʔá'x* 'to cut down' > Mk *fex-inet-ki?* 'ax' • Ni *[ji]ʔa'f* • PCh **[ʔi]hwáh-APPL* • PW **[ʔi]x^wáχ*
- (1093) PM **ʔä'x* ~ **ʔǎ'x* 'field' > Ni *ʔa'f* • PCh **hwéh*
- (1094) PM **(-)ʔétä'ts* 'root' > Mk *fitets* • Ni *-ʔeta's* • PCh **-hwétus* • PW **(-)x^wétes*
- (1095) PM **[ji]ʔi'k* ~ **[ji]ʔí'k* 'to hide' > Ni *[ji]ʔi'tf* • PCh **[ʔi]hwik*
- (1096) PM **ʔi's* 'leech' > Ni *ʔi's* • PW **x^wis*
- (1097) PM **-ʔu't* ~ **-ʔú't*, **-ʔtú-ts* 'flatulence' > Mk *-ftu-ts* • Ni *-ʔu't*, *-ʔtu-ts* • PCh **-hwút*
- (1098) PM **jijá'ts* 'dew' > Mk *ije'ts* • Ni *jija's* • PCh **ʔijés-tah* • PW **ʔijás*
- (1099) PM **jiju's* ~ **jjú's* 'wax' > Ni *jiju's* • PCh **ʔijús*
- (1100) PM **ji'já'X₁₂* 'jaguar' > Ni *ji'já'x* • PCh **ʔa'jáh* • PW **ha'jáχ*
- (1101) PM **jiná't*, **jinát-its* 'water' > Ni *jiná't*, *jinát-is* • PCh **ʔi'nát* (*-es) • PW **ʔinát* (*-es)
- (1102) PM **{j/ʔ}is{a/á/e}'χ* ~ **{j/ʔ}is{á/á/é}'χ* 'sand' > Mk *isa'χ* • PCh **ʔisáh* ~ **ʔisáh*
- (1103) PM **-ká's*, **-kás-él* 'tail' > Ni *-ká's*, *-kás-ek* • PCh **-kás* • PW **-k'ás*, **-k'ás-el^h*

- (1104) PM *[ji]káʔt-APPL ‘to fall’ > Ni [ji]káʔt-APPL • PW *[ni]kʰát-APPL
- (1105) PM *[ji]kʰásaʔχ ~ *[ji]kʰáseʔχ ‘to divide’ > Mk [j]<a>kʰesaʔχ • PCh *[ʔi]kʰésah • PW *[hi]kʰésaχ
- (1106) PM *[ji]kúʔt ‘to answer’ > Mk [j]<e>kuʔt • Ni [ji]kuʔt • PCh *[ʔi]kúhl-APPL • PW *[ni]kʰúʔt
- (1107) PM *kúʔX₁₂ ‘sweat’ > Ni -ʔβ-kuʔx • PW *kʰúx^w
- (1108) PM *(-)kʰútsaʔχ, *(-)kʰútsha-ts ‘old’ > Mk kʰutsaʔχ, kʰutshe-ts • Ni kʰutsaʔx, kʰutsxa-s • PCh *-kʰúsah, *-kʰúsa-s • PW *-kʰútsaχ
- (1109) PM *[ji]léʔx ‘to wash’ > Mk [ji]lix-uʔ ‘to clean’ • Ni [ji]kʰléʔf • PCh *[ʔi]léh • PW *[ʔi]léχ
- (1110) PM *loʔp ~ *lóp, *lop-íts ~ *lóp-íts ‘winter’ > Mk loʔp, lop-its • Ni kʰloʔp, kʰlop-is • PCh *lóp • PW *lop ~ *lóp
- (1111) PM *-ʔliʔx, *-ʔlix-áj^h ‘language, word’ > Mk -ʔlix<eʔ> • Ni -ʔkʰlíʔf, -ʔkʰlíʔf-aj • PCh *-ʔlíh, *-ʔlih-áj^h
- (1112) PM *-tíʔk ~ *tíʔk, *-tíʔj^h ‘thread’ > Ni -tíʔtf, -tíʔj<is> • PCh *-hlík, *-hlíʔj^h
- (1113) PM *-túʔk, *-túʔj^h ‘yica bag, load’ > Mk -túʔk, -túʔj • Ni -túʔk • PCh *-hlúk, *-hlúʔj... • PW *-túk^w, *-túʔj<is>
- (1114) PM *-máʔk, *-mháʔj^h ‘powder, flour’ > Ni -máʔk, -mxáʔj • PCh *-mák • PW *-mók^w, *-mhóʔj^h
- (1115) PM *-naʔx ~ *náʔx / *nxa- ~ *nxá- ‘nose’ > Mk -neʔx / -nxe- • Ni -naʔf, -nfa-s • PCh *-hná<tVwoh> • PW *-nh<us>
- (1116) PM *-njiʔx ‘smell’ > Mk -njiʔx • Ni -niʔf • PCh *-níh • PW *-niχ
- (1117) PM *-pás-eʔt ‘lip’ > Ni -pás<eʔt> • PCh *-pás<at> ~ *-pás<át> • PW *-pás<et>
- (1118) PM *-pʰoʔk ~ *pʰoʔk ‘fence’ > Ni -pʰoʔk • PCh *-pʰók • PW *-pʰok^w
- (1119) PM *-pʰoʔt ‘lid’ > Mk -pʰot<oʔ> • Ni -pʰoʔt • PCh *-pʰót • PW *-pʰot
- (1120) PM *qatiʔts, *qatits-él ‘star’ > Ni katiʔs • PCh *qatés, *qates-él • PW *qates, *qatés-el^h
- (1121) PM *-sáʔt ‘vein’ > Mk -<ʔa>saʔt • Ni -sáʔt • PCh *-sát- • PW *-sát
- (1122) PM *(-)skáʔt ‘mesh’ > Ni -stfaʔt • PW *sikʰet
- (1123) PM *táʔt ‘to sprout’ > Mk taʔt • Ni táʔt • PCh *tát • PW *tát
- (1124) PM *-táwäʔx, *-táwxä-ts ‘(abdominal) cavity’ > Mk -taweʔx, -tawxe-ts • Ni -táβaʔf, -táβxa-s • PCh *-tóweh • PW *-tóweχ

2 Consonants

- (1125) PM **tiʔ*ϕ ‘to suckle’ > Mk *tuʔf* / -*tuʔf* • Ni *tiʔ*ϕ • PCh *[*ʔi*]tíɫ • PW **tip*
- (1126) PM **tijã*ʔχ ‘to shoot, to throw’ > Mk *tija*ʔχ / -*tija*ʔχ • Ni *tijã*ʔx • PCh *[*ʔi*]tíjãh • PW **tijã*χ
- (1127) PM *-*tiʔ*ɫ ‘to spin, to sew’ > Mk [*ji*]tíɫ • Ni *tiʔ*ɫ • PCh *[*j*]<á>tíɫ
- (1128) PM **tiɫã*ʔx ‘to carry on one’s shoulders’ > Mk *tiɫo*ʔx / -*tiɫo*ʔx • Ni *tiɫã*ʔx • PCh *[*ʔi*]tíhlãh • PW **tiɫã*χ
- (1129) PM **tiʔ*x ‘to dig’ > Mk *ti*(ʔ)*x*-APPL / -*ti*(ʔ)*x*-APPL • Ni *tiʔ*f • PCh *[*ʔi*]tíh-ijʔ • PW **ti*χ
- (1130) PM **tlú*ʔk ‘blind’ > Ni *taklu*ʔk • PCh **tʔlúk* • PW **tilúk*^w
- (1131) PM *-*txo*ʔk ~ *-*txó*ʔk, *-*txóko*-wot ‘uncle’ > Mk -*txo*ʔk • Ni -*txo*ʔk, -*txoko*-βot • PCh *-<*i*>tók, *-<*i*>tóko-wot • PW *-<*wi*>thok^w
- (1132) PM **tsänú*ʔk ‘duraznillo trees’ > Ni *tsanu*ʔk • PCh **sinúk* • PW **tsinúk*^w
- (1133) PM *-*úp*ʔ, *-*úp*-its ‘nest’ > Mk 3 *ɫ-up* (-its) • Ni -*u*ʔp, -*up*-is • PCh *-*úp* (*-is) • PW *-*ɫ-úp* (*-is)
- (1134) PM *-*wá*ʔk ‘bad mood’ > Mk -*wak* • Ni -*βã*ʔk • PCh *-*wák* • PW *-*wák*^w
- (1135) PM *-*wá*ʔx, *-*w*(ã)*x*-áj^h ‘burrow; anus’ > Ni -*βa*ʔf, -*βaf*-áj^h • PCh *-*wéh* • PW *-*wé*χ, -*wh*-áj^h
- (1136) PM *ʔ*wäle*ʔk ‘to walk’ > Mk <*i*>ʔ*welki*-ʔ*met* ‘to limp’ • Ni *βakle*ʔtf • PCh *[*ʔi*]ʔ*wélek* • PW *ʔ*weleq*
- (1137) PM *-ʔ*wV*ʔɫ ~ *-ʔ*wV*ʔɫ ‘to climb’ > Mk *we*ʔɫ • Ni *βã*ʔɫ • PCh *[*ʔi*]ʔ*wúɫ* • PW *[*t*]ʔ*wu*ɫ ~ *[*t*]ʔ*wú*ɫ
- (1138) PM *(*X*₁₃*on*-)*xa*ʔχ, *(*X*₁₃*on*-)*xáh*-áj^h ‘night’ > Mk <*na*>*xa*ʔχ • Ni <*xon*>*fa*ʔx, <*xon*>*fa*ʔx-aj • PCh *<*ʔa*>*h*<*n*>*áh* ~ *<*ʔã*>*h*<*n*>*áh* • PW *<*hon*>*a*χ, *<*hon*>*áh*-áj^h
- (1139) PM **ɫ-xáte*ʔk ‘head’ > Ni *ɫ-fatetf* • PCh **hl-étek* • PW **ɫ-éteq*
- (1140) PM **xnáwã*ʔp ‘spring’ > Mk *xinawa*ʔp • Ni *fnãβãp* ~ *fnãβãp* • PCh **náwop* • PW ***náwop*
- (1141) PM *...*X*₂₃*a*ʔt (*-its) ‘earth’ > Ni <*kots*>*xa*ʔt, <*kots*>*xat*-is • PCh *<*ʔa*>*h*<*n*>*át* ~ *<*ʔã*>*h*<*n*>*át* (*-es) • PW *<*hon*>*hat*, *<*hon*>*hát*-es
- (1142) PM **X*₁₃*ó*ʔk ‘palo santo (*Bulnesia sarmientoi*)’ > Ni *xo*ʔk • PCh **hók* • PW **hók*^w
- (1143) PM **X*₁₃*ó*ʔt ‘sandy place’ > Ni *xo*ʔt • PCh **hót* • PW **hót*

- (1144) PM *-X₁₃u^ʔk, *-X₁₃ú-j^h ‘firewood’ > Ni -xu^ʔk, -xu-j • PCh *(ʔítâh)-huk • PW *-huk^w, *-hú-j<is>
- (1145) PM *-ʔaqhu^ʔts ~ *-ʔaqhú^ʔts ‘knee’ > Mk -aqhu^ʔts • Ni -(ʔa)kxu^ʔs • PCh *-ʔaqús
- (1146) PM *ʔatu^ʔχ ~ *ʔatú^ʔχ ‘snake sp.’ > Ni ʔatu^ʔx • PCh *ʔatúh
- (1147) PM *-ʔo^ʔt ~ *-ʔó^ʔt ‘chest’ > Ni -ʔo^ʔt • PCh *-ʔót

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (1148) PM *[ji]kâla^ʔɬ ‘to fry’ > Mk [j]<a>kale^ʔɬ • Ni [ji]kâkâɬ / -kâkâ^ʔɬ
- (1149) PM *kowä^ʔx / *-kówä^ʔx ‘hole’ > PCh *kowéh / *-kóweh • PW *k^lowex / *k^lóweχ
- (1150) PM *-sa^ʔx ~ *-sä^ʔx ‘leaf’ > Mk 3 ɬe-se^ʔx • Ni -sa^ʔf
- (1151) PM *^ʔwé^ʔɬ=aʔ ‘one’ > Mk <e>wi^ʔɬ-eʔ • Ni βé^ʔɬ<a> / -^ʔβé^ʔɬ<a>

PM *^ʔj also merges with its plain counterpart (PM *j) in all languages except Nivaçle in the coda position. Note that PCh *jʔ is the regular reflex not only of PM *^ʔj, but also of PM *j word-finally due to the process of ʔ-epenthesis in Chorote.

- (1152) PM *-á^ʔj, *-áj-is ‘yica bag’ > Ni -a^ʔj, -aj-is • PCh *-éjʔ (*-is) • PW *-ɬ-éj (*-is)
- (1153) PM *[ji]phi^ʔj ~ *[ji]phi^ʔj ‘not to be afraid’ > Ni [ji]phi^ʔj • PCh *[ʔi]hwijʔ • PW *[ʔi]x^wij-eh
- (1154) PM *kula^ʔj ~ *kulá^ʔj ‘sun’ > Ni <xum>kuklâ^ʔj • PCh *kulájʔ
- (1155) PM *[ji]lâ^ʔj ‘to withstand’ > Ni [ji]klâ^ʔj • PCh *[ji]lâj-eh • PW *[ji]lâj
- (1156) PM *[t]pá^ʔj ‘to be bitter’ > Ni [t^ʔa]pá^ʔj • PCh *páhj-iʔ • PW *[t]páj
- (1157) PM *(-)wo^ʔj ‘blood’ > Ni βo^ʔj / -^ʔβoj-ej • PCh *(-)wój-is • PW *^ʔwoj-ís / *-^ʔwój-is

The very same correspondence is observed in two etymologies with a limited distribution (Maká and Nivaçle), whose PM age is thus questionable.

- (1158) PM *ti^ʔj ‘to weave’ > Mk tij / -ɬij • Ni ti^ʔj
- (1159) PM *t^ʔá^ʔj ‘to sound, to have voice’ > Mk t^ʔaj • Ni t^ʔá^ʔj

2 Consonants

By contrast, the examples below show that PM $*ʔm$ and PM $*ʔn$ are preserved as contrastive units not only in Maká and Nivaácle, but also in Chorote and Wichí, at least word-finally. The Wichí reflexes in (1164) and (1165) are irregular: the former shows an irregular loss of the word-final consonant; the latter is deviant in a number of respects and lacks the expected glottalization.

- (1160) PM $*-áʔm$ ‘pronominal formative’ > PCh $*-áʔm$ • PW $*-áʔm$
- (1161) PM $*[t]kúʔm-APPL$ ‘to grab; to work’ > Mk $[te]kuʔm-APPL$ • Ni $[tʔa]kuʔm-APPL$ • PCh $*[ʔi]kúm-APPL$ • PW $*[t]kúʔm-APPL$
- (1162) PM $*kʔutX_{23}áʔn$, $*kʔutX_{23}án-its$ ‘thorn’ > Ni $kʔutxaʔn$, $kʔutxan-is$ • PCh $*kʔutáʔn$, $*kʔután-is$ • PW $*kʔʔutháʔn$, $*kʔʔuthán-is$
- (1163) PM $*[ji]táʔm$ ‘to defecate’ > Mk $<i>táʔm$ • Ni $[ji]táʔm$ • PCh $*[ʔi]hláʔm$ • PW $*[t]táʔm$
- (1164) PM $*pháʔm$ ‘up’ > Mk $-phaʔm$ • PCh $*pʔháʔm$ • PW $*-phá / *phâm-$
- (1165) PM $*stwúʔn$, $*stwún-its$ ‘king vulture’ > Ni $staβuʔn$, $staβun-is$ • PCh $*ʔstúuʔn$, $*ʔstúun-is$ • PW $*ʔistíwin$
- (1166) PM $*[ji]woʔm$ ‘to throw’ > Mk $[i]wuʔm$ • PCh $*[ʔi]wóm-APPL$ • PW $*[ʔi]woʔm$
- (1167) PM $*-ʔäsχaʔn$, $*-ʔäsχán-its$ ‘meat’ > Mk $-ʔeseʔn$, $-ʔesen-its$ • Ni $-(ʔa)sxaʔn$, $-(ʔa)sxan-is$ • PCh $*-ʔisáʔn$, $*-ʔisán-is$ • PW $*-tʔisaʔn$, $*-tʔisán-is$

Finally, PM $*ʔl$ is reconstructed in order to account for three cognate sets with a limited distribution (Maká and Nivaácle, Chorote and Wichí), whose PM age is thus questionable. In these cases, the glottalization is preserved in Maká, Nivaácle, and Chorote, but not in Wichí (due to a process that converted word-final PM $*l$ and $*ʔl$ into PW $*l^h$, see §9.1.1.13).

- (1168) PM $*-áʔl$ ‘light, brightness’ > PCh 3 $*hl-áʔl$ • PW $*-t-ál^h$
- (1169) PM $*kóʔl$ ‘locust’ > PCh $*kóʔl$ • PW $*kʔól^h$
- (1170) PM $*maʔlaʔl \sim *-\tilde{a}-$ ‘agile’ > Mk $meʔleʔl$ ‘to move’ • Ni $maklaʔk$

2.4 $*CX$ -clusters (consonant + a guttural fricative)

There is ample evidence supporting the reconstruction of consonant clusters of the structure $*/CX/$, where X stands for a velar, uvular, or glottal fricative. Their development is shown in Table 2.3. Note that PM $*h$ does not occur after fricatives (§5.2.4). Conversely, PM $*χ$ is only securely reconstructed after fricatives (it

2.4 *CX-clusters (consonant + a guttural fricative)

may have also occurred after stops and/or sonorants, but the evidence is inconclusive). It is unclear how these clusters were syllabified in Proto-Mataguyan; their reflexes are typically tautosyllabic in Chorote and Wichí, but not in Nivaêle and Maká. We find it more likely that Chorote and Wichí retain the original situation, since */CX/ clusters are particularly common morpheme-initially.

Table 2.3: PM clusters with a guttural fricative as the second element

| Proto-Mataguyan | Maká | Nivaêle | Proto-Chorote | Proto-Wichí |
|-----------------|------|---------|---------------|-------------|
| *Px | Px | Px / Pf | *P | *Ph |
| (*Pχ) | (Pχ) | (Px) | (*P) | (*Ph) |
| *Ph | Ph | Px | *hP / *P | *Ph |
| *Fx | Fx | Fx / Ff | *F | *F |
| *Fχ | F | Fx | *F | *F |
| *Mx | Mx | Mx / Mf | *hM | *Mh |
| (*Mχ) | (Mχ) | (Mx) | (*hM) | (*Mh) |
| *Mh | Mh | Mx | *hM | *Mh |

P = stop, F = fricative, M = sonorant

The examples below show the evolution of PM clusters with *x as the second element. These are preserved in Maká and Nivaêle (with PM *x yielding Ni f in palatalizing environments, as discussed in §2.1.10 and §7.1.1.3). In Chorote, they yield PCh *hC if the consonant is a sonorant and PCh *C otherwise; the vowel epenthesis in (1183) is irregular (see more on the development of PM *Px > PCh *P in §8.1.1.12). In Wichí, they yield PW *Ch unless the consonant is a fricative, in which case one finds the reflex PW *C. Note that the reflexes in (1176) in Nivaêle and Wichí are entirely irregular due to contamination with those of PM *-pás(-eʔt) ‘lip’; the regular reflexes are found in Maká and Chorote. (1173) shows vowel epenthesis in Maká and Wichí, presumably due to the fact that the consonant cluster occurs word-initially.

- (1171) PM *k'alxó (*-ts) ‘armadillo sp.’ > Ni k'akxo (-s) • PCh *k'ihló? (*-s) • PW *kʲ'anhóh
- (1172) PM *-nxa- ~ *-nxá- ‘nose’ > Mk -nxe- • Ni -nfa- • PCh *-hná<tVwoh> • PW *-nh<us>
- (1173) PM *ŋ-xáte? (*-l) [?] *ŋ-xáti? ‘dream, sleepiness’ > Mk -nixati? (-l) • Ni nxáte (-k) • PCh *ʔihnáti? • PW *naháti
- (1174) PM *[ji]nxiʔwän ‘to smell’ > Mk [ji]nxiʔwen • PCh *[ʔi]hniʔwen

2 Consonants

- (1175) PM $*(-)^{\text{?}}\text{nájx-aj}^{\text{h}}$ ‘paths’ > Ni $(-)\text{nájf-aj}$ • PCh $*(-)^{\text{?}}\text{nájh-aj}^{\text{h}}$ • PW $*(-)^{\text{?}}\text{nájh-aj}^{\text{h}}$
- (1176) PM $*\text{-pxúse?}$ ($*\text{-j}^{\text{h}}$) ‘beard’ > Mk -<a>pxusi? ($-j$) • Ni -páse ($-j$) • PCh $*\text{-púse?}$ ($*\text{-j}^{\text{h}}$) • PW $*\text{-páse}$ ($*\text{-j}^{\text{h}}$)
- (1177) PM $*\text{-}^{\text{?}}\text{txo}^{\text{?}}\text{k} \sim *^{\text{?}}\text{txó}^{\text{?}}\text{k}, *^{\text{?}}\text{txóko-wot}$ ‘uncle’ > Mk $\text{-txo}^{\text{?}}\text{k}$ • Ni $\text{-}^{\text{?}}\text{txo}^{\text{?}}\text{k}, \text{-}^{\text{?}}\text{txoko-}\beta\text{ot}$ • PCh $*\text{-<i>tók}, *^{\text{?}}\text{-<i>tóko-wot}$ • PW $*\text{-<wi>thok}^{\text{w}}$
- (1178) PM $*\text{-}^{\text{?}}\text{xájk}^{\text{?}}\text{u}$ ($*\text{-l}$) ‘egg’ > Ni $\text{-}^{\text{?}}\text{fajk}^{\text{?}}\text{u}$ ($-k$) • PCh $*\text{hl-éjk}^{\text{?}}\text{u?}$ ($*\text{-l}$) • PW $*\text{-}^{\text{?}}\text{ik}^{\text{?}}\text{u}$ ($*\text{-l}^{\text{h}}$)
- (1179) PM $*\text{-}^{\text{?}}\text{xáte}^{\text{?}}\text{k}$ ‘head’ > Ni $\text{-}^{\text{?}}\text{fatetf}$ • PCh $*\text{hl-étek}$ • PW $*\text{-}^{\text{?}}\text{éteq}$
- (1180) PM $*\text{xunxáta}\chi$ ‘tusca fruit’ > Mk $\text{xunxeta}\chi$ • Ni $\text{xunfata}\chi$ • PCh $*\text{?ihnáta}\text{h}$ • PW $*\text{xnháta}\chi$
- (1181) PM $*\text{xunxáta-}(ju)^{\text{?}}\text{k}$ ‘tusca tree’ > Mk $\text{xunxete-}^{\text{?}}\text{k}$ • Ni xunfata-juk • PCh $*\text{?ihnáta-k}$ • PW $*\text{xnháte-q}$
- (1182) PM $*\text{xunxáta-kat}$ ‘tusca grove’ > Mk xunxete-ket • Ni xunfata-tfat • PCh $*\text{?ihnáta-kat}$
- (1183) PM $*\text{?}[j]\text{éjxâts-han}$ ‘to teach’ > Mk $[j]\text{ixats}<\text{hen}>$ • Ni $[j]\text{ejxats-xan} / \text{-?ejxats-xan}$ • PCh $*\text{?}[j]\text{éjâhâs}<\text{an}>$

The following examples show the evolution of PM clusters with $*\chi$ as the second element. All clear cases involve a fricative as the first element. In Maká, Chorote, and Wichí, PM $*\chi$ is lost after a fricative. In Nivaçle, one finds the reflex Cx. We believe $*\chi$ could also occur after other kinds of consonants, as is still the case in Maká, and we predict its reflexes to be as detailed in Table 2.3; however, all putative cases of $*P\chi$ and $*M\chi$ that we have considered allow for alternative reconstructions as well.

- (1184) PM $*[ji]\phi\chi\text{än-} \sim *[ji]\phi\chi\text{än-}$ ‘to kill a bird’ > Ni $[ji]\phi\text{xan-APPL}$ • PCh $*\text{-?a}>\text{hwén-}(n)\text{ah}$ ‘bird’ • PW $*\text{-?a}>\text{x}^{\text{w}}\text{én-k}^{\text{?}}\text{e}$ ‘bird’
- (1185) PM $*\text{-}\phi\chi\acute{\text{u}}\text{x}, *^{\text{?}}\text{-}\phi\chi\acute{\text{u}}\text{-ts}$ ‘finger’ > Mk -fux • Ni $\text{-}\phi\text{xux}, \text{-}\phi\text{xu-s}$ ‘toe’ • PCh $*\text{-hwu-ké?}$ • PW $*\text{-x}^{\text{w}}\acute{\text{u}}\text{x}^{\text{w}}, *^{\text{?}}\text{-x}^{\text{w}}\acute{\text{u}}\text{-s}$
- (1186) PM $*\text{ké}\chi\text{a-ju}^{\text{?}}\text{k}, *^{\text{?}}\text{ké}\chi\text{a-jku-j}^{\text{h}}$ ‘red quebracho’ > Mk $\text{ke}\chi\text{-jku-}$ • Ni $\text{tfe}\chi\text{a-juk}, \text{tfe}\chi\text{a-ku-j}$ • PCh $*\text{kéhla-juk} / *^{\text{?}}\text{kéhla-jku-}$ • PW $*\text{k}^{\text{?}}\text{é}\chi\text{-juk}^{\text{w}}, *^{\text{?}}\text{k}^{\text{?}}\text{é}\chi\text{-k}^{\text{?}}\text{u-j}^{\text{h}}$
- (1187) PM $*\text{tá}\chi\text{an}$ ‘to thunder’ > Mk texen • Ni taf xen • PW $*\text{t}^{\text{?}}\text{á}\chi\text{an}$
- (1188) PM $*\text{-}\text{?ás}\chi\text{a}^{\text{?}}\text{n}, *^{\text{?}}\text{-}\text{?ás}\chi\text{án-its}$ ‘meat’ > Mk $\text{-}\text{?ese}^{\text{?}}\text{n}, \text{-}\text{?esen-its}$ • Ni $\text{-}(?\text{a})\text{sxa}^{\text{?}}\text{n}, \text{-}(?\text{a})\text{sxan-is}$ • PCh $*\text{-}\text{?isá}^{\text{?}}\text{n}, *^{\text{?}}\text{-}\text{?isán-is}$ • PW $*\text{-t}^{\text{?}}\text{-}\text{isa}^{\text{?}}\text{n}, *^{\text{?}}\text{-t}^{\text{?}}\text{-}\text{isán-is}$

2.4 *CX-clusters (consonant + a guttural fricative)

The examples below show the evolution of PM clusters with **h* as the second element. In Maká, PM **h* is preserved. In Nivaçle, one finds Cx (except that **wh* yields Ni x). In Chorote, such clusters always yield PCh **hC* after a stressed vowel except if the consonant in question is PCh **s* < PM **ts* (phonetically, /s/ in Chorote often does surface as [hs] or [xs], but there is no contrast between /s/ and /hs/). After an unstressed vowel, the reflex is PCh **C* (1204), and word-initially one finds an inserted vowel, as in (1190) and (1194). In Wichí, these same clusters yield PW **Ch*, with vowel insertion applying word-initially at least in the cluster **kh* (1190).

- (1189) PM **phátshu-ts* ‘centipedes’ > Ni *phatsxu-s* • PCh *(*h*)*wásu-s*
- (1190) PM **khát* ‘cactus’ > Mk *khat-u’k* • Ni *kxat* • PCh **káhát* • PW **k’áhát*
- (1191) PM *(*-*)*k’útsha-ts* ‘old.PL’ > Mk *k’utshe-ts* • Ni *k’utsxa-s* • PCh *(*-*)*k’úsa-s*
- (1192) PM **-mhá-j^h* ‘powders, flours’ > Ni *mxá-j* • PW **-mhó-j^h*
- (1193) PM *(*-*)*níjhá-j^h* ‘ropes, cords’ > Mk (*-*)*nijha-j* • Ni *-nijxá-j* • PCh **níjhá-j^h* • PW **nijhá-j^h*
- (1194) PM **phá’^hm* ‘up’ > Mk *-pha’^hm* • PCh **p’há’^hm* • PW **-phá / *phám-*
- (1195) PM **[t]qánhan* ‘to fish with a hook’ > Mk *[ta]<qa>qanhen* • PCh **[t’]qáhnan* • PW **[t]qánhan*
- (1196) PM **sláqha(’^h)j*, **sláqhaj-its* ‘wild cat’ > Ni *sklâkxaj ~ sklâkxaj (-is)* • PCh **s’láhqaj? ~ *s’láhqáj? (*-is)* • PW **siláqháj*
- (1197) PM **títhe-j^h* ‘plates’ > Ni (*-*)*titxe-j* • PCh **tíhte-j^h*
- (1198) PM **wáth(á-j)u’k* ‘palo flojo tree’ > Ni *âtxá-juk* • PCh **wáht<uk>*
- (1199) PM **-whá’ja?* ‘spouse’ > Mk *-whe’je?* • Ni *-xa’ja* • PCh **-hwá’ja?*
- (1200) PM **[t]wha’já-’j* ‘to marry’ > Mk *[te]whe’je-j* • Ni *[t]xa’ja-’j* • PCh **[t’]hwa’jé<j?>* • PW **[t]wháje<j>*
- (1201) PM **wátshan ~ *wátshān* ‘to be healthy, alive’ > Ni *βatsxan* • PCh **wása’^hn* • PW **wátshan*
- (1202) PM **-xáthe-j^h* ‘heads’ > Ni *-fatxe-s* • PCh **-héhte-j^h* • PW **-t-éthe-j^h*
- (1203) PM *(*?a*)*X₁₃útsha-ts* ‘crested caracaras’ > Ni *xutsxa-s* • PCh *(*?a*)*húsa-s* • PW **?ahútsha-s*
- (1204) PM **-?aqhu’^hts ~ *-?aqhú’^hts* ‘knee’ > Mk *-aqhu’^hts* • Ni *-(?a)kxu’^hs* • PCh **-?aqús*

2 Consonants

- (1205) PM *ʔánhajeχ ‘wild bean (*Capparis retusa*)’ > Mk *anhejaχ* • Ni *ʔánxajex* • PCh *ʔóhnajah • PW *ʔánhjaχ
- (1206) PM *ʔ[j]éjxâts-han ‘to teach’ > Mk [j]ixats<hen> • Ni [j]ejxats-xan / -ʔejxats-xan • PCh *ʔ[j]éjâhâs<an>

The same correspondences are observed in etymologies with a limited distribution (Maká and Nivačle, Chorote and Wichí), whose PM age is thus questionable.

- (1207) PM *ʔánhaʔ ~ *ʔánhaʔ (*-j^h) ‘locust’ > Mk <e>fenheʔ(-j) • Ni *ʔanxa* (-j)
- (1208) PM *k’unhate-nhaʔ ‘pacu fish’ > Mk <i>k’unheti-nheʔ (-j) • Ni *k’unxate*<nxa> (-j)
- (1209) PM *-témh-aj^h ~ *-támh-aj^h ‘bile.PL’ > PCh *-téhm-aj^h • PW *-témh-aj^h
- (1210) PM *ʔáthajeχ ~ *ʔáthäjeχ ‘molle fruit’ > Mk *athejaχ* • Ni *ʔátxajex*
- (1211) PM *ʔomhatäk ~ *ʔomhätäk ‘queen palm fruit’ > Mk *omhetek* • Ni *ʔomxatatf*
- (1212) PM *-ʔóʔthaleʔ) ~ *-ʔóʔtháleʔ) ‘heart’ > PCh *-ʔóhtaleʔ ~ *-ʔóhtáleʔ • PW *-t-’ótle

In some cases crucial cognates in Maká are either lacking or attested with different consonants in different sources, making it impossible to ascertain which guttural fricative is to be reconstructed to Proto-Mataguayan.

- (1213) PM *ʔajXoʔ, *ʔajXó-l / *-ʔájXoʔ (*-l) ‘coal’ > Ni (-)ʔajxoʔ (-k) • PCh *hwa(h)jo- • PW *x^wijhoʔ), *x^wijhó-l^h / *-x^wijho (*-l^h)
- (1214) PM *-k’inxáʔ[?] ~ *-k’inxáʔ (*-wot) ‘younger sister’ > Mk -k’inxaʔ[?] -k’inxaʔ • Ni -tʔinxá (-ʔot) • PCh *-k’ihnáʔ (*-wot) • PW *-k^j’inhá
- (1215) PM *k’utX₂₃áʔn, *k’utX₂₃án-its ‘thorn’ > Ni *k’utxaʔn*, *k’utxan-is* • PCh *k’utáʔn, *k’után-is • PW *k^j’utháʔn, *k^j’uthán-is
- (1216) PM *[ji]lXón ‘to roast’ > Ni [ji]kxon • PCh *ʔi]hlón • PW *[t]nhón
- (1217) PM *ʔlájX₂₃VnáX₁₃á ‘Azara’s night monkey’ > Ni *k̄lajxenâxá* • PCh *ʔlêhjanâhâ-keʔ
- (1218) PM *ʔútsX₂₃aʔ) (*-jek) ‘girl’ > Ni *ʔutsxa* (-jetf) • PCh *hlúsaʔ) (*-jek) • PW *ʔútsha
- (1219) PM *-nX₂₃atáʔ ‘nasal mucus’ > Ni -nxatáʔ • PCh *-hnát<ijah-PL>
- (1220) PM *-nX₂₃aq(’)át ‘to snore’ > Ni [ta]nxakât • PCh *ʔi]hnâq’át

- (1221) PM *^wwánXá^táχ, *^wwánXá^tá-ts ‘rhea’ > Mk *waatáχ* • Ni *βánxá^táx*, *βánxá^tá-s* • PCh *^wwánhlâh, *^wwánhlâ-s • PW *wá^wn^táχ, *wá^wn^tá-s

The same correspondences are observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (1222) PM *kójXa(?)^t ‘to be heavy’ > PCh *kóhjat-APPL • PW *k^jóhjat
 (1223) PM *kpénX₁₃a-ts ~ *kpánX₁₃a-ts ‘orphans’ > PCh *kpéhna-s • PW *k^jpénha-s
 (1224) PM *[ji]-tXá(?)^t ‘to throw, to put’ > PCh *[ʔi]tát-APPL • PW *[ʔi]thát
 (1225) PM *ʔatsXa(?), *ʔatsXá-l ‘dorado’ > PCh *ʔasá? (*-l) • PW *ʔatsha(?), *ʔatshá-l^h

Quite exceptionally for Mataguayan languages, in a handful of morphemes, the clusters **jh* and possibly **lh* are reconstructed in the coda position (word-finally only). For aesthetic reasons, we represent them as **j^h* and **l^h*. The evidence for this comes from Chorote and Weenhayek. In both lects, /h/ occurs in word-final position, thus bleeding *ʔ-insertion. However, it does not surface when the morpheme is not word-final, as described by Claesson (1994) and Carol (2014a). For instance, the indirect evidential in Iyo’awujwa’ and Manjui surfaces as -t’*ej^h* when it is word-final, but as -t’*ej-* or -t’*ij-* when an enclitic or suffix follows. The phonetic realization of the reflexes of **l^h* does not differ in Chorote and Weenhayek from that of the reflexes of PM **l*. In Wichí, one finds the reflex **h* rather than ***j^h* after the vowel **i* (1230).

- (1226) PM *-(á)^{j^h} ‘PL’ > Mk -(e)*j* • Ni -(a)*j* • PCh *-(á)^{j^h} • PW *-(á)^{j^h}
 (1227) PM *-*ej^h* ‘APPL:DISTAL’ > Mk -*ij* • Ni -*ej* • PCh *-*ej^h* • PW *-*ej^h*
 (1228) PM *-*náj^h* ‘to bathe’ > Ni [βa]*naj* • PCh *[ʔi]*náj-APPL* • PW *[ʔi]*náj^h*
 (1229) PM *-*sáq’ál^h*, *-*sáq’ál-its* ‘soul, spirit’ > Mk (?) -*si’nq’al* (-its) • Ni -*sák’ák^l<it>* • PCh *-*sáq’ál^h*, *-*sáq’ál-is*
 (1230) PM *-*xíj^h* ‘recipient’ > Mk -*xij* • Ni -*fij* / -*xij* • PW *-*híh*

2.5 Other consonant clusters

Other types of consonant clusters are reconstructed primarily based on evidence from Nivaçle.

2 Consonants

The Proto-Mataguayan sequence $*k\phi$ develops normally in Maká and Nivaçle, but yields Proto-Chorote $*kw$ (> Ijw k^j , I'w/Mj k) and Proto-Wichí $*k^w$. The preceding vowel (if there is one) apparently becomes rounded in the latter two languages, though it is unknown whether this is regular, since only one example has been found.

- (1231) PM $*[j]ék\phi a^?x$ ‘to bite’ > Mk $[j]ikfe^?x$ • PCh $*[j]ók\phi wah$ • PW $*[j]ók^w a\chi$
- (1232) PM $*-k\phi e(?)$ ($*-j^b$) ‘ear’ > Mk $-kfi?$ ($-j$) • Ni $-k\phi e?$ ($-j$) • PW $^*-(t-)k^we<j> / ^*-(t-)k^we-$ ‘arm, hand’
- (1233) PM $*[j]ók\phi e(?)$ (t) $s \sim *[j]ók\phi ä(?)$ (t) $s \sim *[j]ék\phi e(?)$ (t) $s \sim *[j]ék\phi ä(?)$ (t) s ‘to frighten’ > PCh $*[j]ók\phi wes$ • PW $*[j]ók^wes$

The Proto-Mataguayan sequence $*nj$ or $*^?nj$ preserves its palatal approximant in Maká (with PM $*^?nj$ > Mk nij at least word-initially), but loses it in Chorote and Wichí (in the latter language, PM $*^?nj$ > PW $*^?n$ at least word-initially).

- (1234) PM $*-nji^?x$ ‘smell’ > Mk $-nji^?x$ • Ni $-ni^?f$ • PCh $*-níh$ • PW $*-ni\chi$
- (1235) PM $*^?njánxte?$ ‘tapeti rabbit, cavy’ > Mk $nijaxti?$ • Ni $nánxate$ • PCh $*^?náhâte?$ • PW $*^?náté$

The Proto-Mataguayan onset $*st$ is preserved in Nivaçle. It is resolved by means of i -insertion in Maká, whereas in Chorote and Wichí a vowel (PCh $*^?i$, PW $*i$) is inserted before the cluster (at least word-initially).

- (1236) PM $*sténi(?)$ ‘white quebracho’ > Mk $sitin-u^?k$ • PCh $*^?sténi?$ • PW $*^?isté^?nih$
- (1237) PM $*stwú^?n$, $*stwún-its$ ‘king vulture’ > Ni $sta\beta u^?n$, $sta\beta un-is$ • PCh $*^?stúu^?n$, $*^?stúun-is$ • PW $*^?istíwin$
- (1238) PM $*stá-^?q$ ‘toothpick cactus (*Stetsonia coryne*)’ > PCh $*^?stá-k$ • PW $*^?istá-q$
- (1239) PM $*stá\phi e(?)$ ‘Chaco chachalaca’ > PCh $*^?stáhwe?$ • PW $*^?istáx^we$

Most clusters involving two voiceless segments are typically preserved in Nivaçle and Wichí, whereas in Chorote they are resolved by means of vowel insertion (the inserted vowel is PCh $*^?i$, or PCh $*i$ after PCh $*k$). Note the sound change PM $*tsn$ > PW $*tn$ in Wichí in (1244).

- (1240) PM $*\phi kéna(?)\chi$ ‘north wind, north’ > Ni $\phi tfenax$ • PCh $*hw^?kénah$
- (1241) PM $*ktá^?nih$ ‘Chaco tortoise’ > PCh $*kitá^?nih$ • PW $*k^j\acute{t}á^?nih$

- (1242) PM **ktéta*(?) ~ **ktāta*(?) ‘white algarrobo fruit (*Prosopis elata*)’ > PCh **kitéta*? • PW **k'téta*
- (1243) PM **spú*(?)*p* ‘dove’ > PCh **s^opúp* • PW **spúp*
- (1244) PM **tátsna*(?)*X*₁₂ ~ **tátsne*(?)*χ* ‘toad’ > PCh **tásVnah* • PW **tátnaχ*
- (1245) PM **tkéna*(?)*X*₁₂ ~ **tkána*(?)*X*₁₂, **tkén**X*₁₃*a-ts* ~ **tkän**X*₁₃*a-ts* ‘precipice; hill, mountain’ > PCh **t^okénah*, **t^okéhna-s* • PW **tk'énaχ*, **tk'énha-s*

In one root, a cluster involving two voiceless segments occurs in the beginning of a relational stem in Maká, whereas other languages show a reflex of PM **á* between the consonants in question. It is unclear whether a consonant cluster should be reconstructed in this case (assuming vowel insertion in Nivaçle, Chorote, and Wichí) or whether the vowel was already there in Proto-Mataguayan (assuming an irregular syncope in Maká).

- (1246) PM **-t(á)ko?*(**-l*) ‘face’ > Mk *-tko<jek>* • Ni *-tako?*(*-k*) • PCh **-tóko?*(**-l*) • PW **-ták'o*(**-l^h*)
- (1247) PM **-t(á)ko-se?*(**-j^h*) ‘eyebrow’ > Mk *-tko-si?*(**-j*) • PCh **-tóko-se?*(**-j^h*) • PW **-ták'o-se*(**-j^h*)

Clusters involving PM **l*, **w*, or **w* as the first member develop normally in Nivaçle. In Maká, they are resolved by means of *e*-insertion if the cluster occurs stem-initially; in the middle of the stem the sonorant is simply lost (1251). In Chorote, PM **l* as a first member of a consonant cluster is deleted word-initially, but is preserved word-medially; PM *(*ʔ*)*w*, by contrast, is preserved word-initially (with an intrusive PCh **ʔ* breaking the cluster) but lost word-medially. In Wichí, the first element of the cluster is lost, but a deleted PM **w* can trigger rounding of PM **e* to PW **o* in (1253).

- (1248) PM **-k'álφαh* ‘spouse’ > Ni *-t^ʔakφα* • PCh **-k'élhwah* • PW **-k'^jéx^wah*
- (1249) PM *(*-*)*lká*(*ʔ*)*ł* ‘nasal mucus, cold’ > Mk *-leke*(*ʔ*)*ł* • PCh **két* • PW **k'éł-taχ*, **k'éł-ta-s*
- (1250) PM **lkéte* ‘squash’ > Mk *lekiti* • PCh **kéte?*
- (1251) PM **-łi^ʔwte?* ‘heart’ > Mk *-łiti?* • Ni *-łi^ʔβte*
- (1252) PM **níltsa*(*ʔ*)*X*₁₂, **nílts**X*₁₃*a-ts* ‘white-lipped peccary’ > PCh **<łih>nílsah*, **<łih>nílsa-s* • PW **nítsaχ*, **nítsha-s*
- (1253) PM **-tséwte*(*ʔ*)(**-j^h*) ‘tooth’ > Ni *-tseβte*(*-j*) • PW **-tsóte*(**-j^h*)

2 Consonants

- (1254) PM *-ʔwłiʔ ~ *-ʔwłiʔ, *-ʔwłi-ts ‘rib’ > Mk -ʔwełiʔ(-ts) • Ni -ʔβłi / -βłiʔ(-s)
• PCh *-hlí<s>
- (1255) PM *-w(t)s'é (*-l) ‘belly’ > Ni -βts'e (-k) • PCh *-ts'éʔ (*-l) • PW *-ts'é (*-l^h)
- (1256) PM *wkína(ʔ)X₁₂, *wkinX₁₃a-ts ‘metal’ > PCh *w^əkínah, *w^əkínha-s • PW
*k^jínaχ, *k^jínha-ts

Only one word is reconstructed with a cluster whose initial element is PM *ʔj. In Maká, PM *ʔjt yields ʔt in variation with t (Gerzenstein 1999: 130); in Nivaçle, one finds ʔβt varying with ʔjt; in Chorote, the reflex is *jʔt; in Wichí, *jt.

- (1257) PM *ʔáʔjtex, *ʔáʔjte-ts ‘to hurt’ > Mk aʔtaχ, aʔti-ts • Ni ʔáʔjtex ~ ʔáʔβtex •
PCh *ʔáʔjʔtah-APPL, *-ʔáʔjʔte-s-APPL • PW *ʔáʔjtaχ, *ʔáʔjte-s

Clusters with a PM guttural fricative followed by another consonant evolve normally in Maká and Nivaçle, with an epenthetic Mk *i* breaking apart the PM cluster *xn (1260) and an epenthetic Ni *a* resolving the triconsonantal cluster in (1259). In Chorote, the guttural consonant disappears stem-initially, as in (1260), (1262)–(1264), except in (1261), where PM *Xp yields PCh *ʔip. Word-medially (at least before a stop), the guttural consonant yields PCh *h, and a vowel (a copy of the preceding vowel) is inserted to break the cluster apart, as in (1258)–(1259), (1265). In Wichí, the guttural consonant is lost stem-medially, at least preceding a stop, as in (1259) and (1265); stem-initial clusters of a guttural consonant and a sonorant yields PW *xC, as in (1260), (1262), (1264), whereas in the only example of a stem-initial cluster of a guttural consonant and a stop one finds PW *hp as the reflex (1263).

- (1258) PM *-k'óX₂₃te(?) (*-j^h) ‘ear’ > PCh *-k'óoteʔ (*-j^h) • PW *-k^jóte (*-j^h)
- (1259) PM *ʔnjánxteʔ ‘tapeti rabbit, cavy’ > Mk nijaxtiʔ • Ni nánxate • PCh
*ʔnáhâteʔ • PW *xnáte
- (1260) PM *xnáwáʔp ‘spring’ > Mk xinawaʔp • Ni fnaβâp ~ fnâβâp • PCh *nâwop
• PW *xnáwop
- (1261) PM *xpáʔk ~ *xpáʔk ‘straw’ > Mk xupa(ʔ)k [?] xupek • Ni xpáʔk • PCh
*ʔipák
- (1262) PM *Xmáwoh ‘fox’ > PCh *máwo-tah • PW *xamáwoh
- (1263) PM *(-)X₂₃pél ‘shadow’ > Ni xpek • PCh *-pél • PW *hpél^h / *-hpe^h
- (1264) PM *X₂₃wé'lah, *X₂₃wé'la-ts ‘moon’ > Ni xiβe'la (-s) • PCh *wé'lah,
*wé'la-s • PW *xwé'lah

- (1265) PM **-ʔáX₂₃te(?)* (**-j^h*) ‘female breast’ > Ni *-ʔaxte* (-j) • PCh **-ʔáhate?* (**-j^h*)
• PW **-t-’áte* (**-j^h*)

Clusters with PM **(?)w* as the last element are followed by PM **u* in all known examples. These evolve normally in Nivaçle, with an epenthetic Ni *a* resolving the triconsonantal cluster in (1266). The cluster PM **s(?)w* yields Mk *suʔ*, PCh **sʔʔ*, PW **s*, whereas PM **stw* is found in one example (1266), where it evolves in an idiosyncratic way in Chorote and Wichí.

- (1266) PM **stwúʔn*, **stwún-its* ‘king vulture’ > Ni *staβuʔn*, *staβun-is* • PCh **ʔʔstúuʔn*, **ʔʔstúun-is* • PW **ʔistíwin*
- (1267) PM **sʔwúlaʔχ*, **sʔwúla-ts* ‘anteater’ > Ni *sʔβuklax*, *sβukla-s* • PCh **sʔʔúlah*, **sʔʔúla-s* • PW **súlaχ*
- (1268) PM **[ji]sʔwun* ~ **[ji]sʔwún* ‘to like, to love’ > Mk *[ji]suʔun* • Ni *[ji]sʔβun*
• PCh **[ʔi]sʔʔún*

The PM clusters **sk*, **sl*, and **tl* are resolved by vowel insertion in Chorote (PCh **ə*) and Wichí (PW **i*) when tautosyllabic. In the only example, a heterosyllabic instance of **skʔ* develops normally in Chorote. In Nivaçle, an epenthetic *a* breaks apart the cluster *tkl*, and in most dialects the PM sequence **sl* is reflected as *ʃkl* rather than *skl*.

- (1269) PM **(-)skäʔt* ‘mesh’ > Ni *-stfaʔt* • PW **sikʔet*
- (1270) PM **sláqha(?)j*, **sláqhaj-its* ‘wild cat’ > Ni *ʃklākxaj* ~ *sklākxaj* (-is) • PCh **sʔláhqajʔ* ~ **sʔláhqajʔ* (**-is*) • PW **siláqhāj*
- (1271) PM **ilúʔk* ‘blind’ > Ni *takluʔk* • PCh **tʔlúk* • PW **tilúk^w*
- (1272) PM **ʔaskʔála(?)χ* ‘widower’ > Ni *ʔastʔaklax* • PCh **ʔaskʔélah*

The PM clusters **qk* and **tts* occur in one etymology each. In Maká, they yield *qq* and *tts*. In Nivaçle, they are reflected as *k* and *ts*. In Chorote, **qk* is reflected as **V^wk*, with the doubling of the preceding vowel.

- (1273) PM **(-)háqke?* ‘well’ > Mk *haqqiʔ* ‘river’ • Ni *-xáke* ‘dry well’ • PCh **-hááke?* ‘artificial well’
- (1274) PM **lattsiki-juʔk* ‘willow’ > Mk *lattsiki-juʔk* • Ni *klattsiki-juk*

Finally, the PM clusters **φq* and **φts* occur in one or two etymologies each and are reconstructed based on evidence from Nivaçle. In other languages, PM **φ* is either lost or separated from the following consonant by an epenthetic **i*. Due to the scarcity of examples, it is difficult to formulate a generalization.

2 Consonants

- (1275) PM **-φqató* (**-l*) ‘elbow’ > Ni *-(ʔV)φkato* (*-k*) • PCh **-qató?* (**-l*) • PW **-qáto* (**-l^h*)
- (1276) PM **φtsána*([?])χ ‘suncho (*Baccharis sp.*)’ > Ni *φtsánax* • PCh **sánah* • PW **x^witsánax*
- (1277) PM **φts-u^ʔk* ‘palm (*Copernicia alba*)’ > Mk *fits-uk* • Ni *φts-u^ʔk* • PCh **hwis<úk>* • PW **x^wits<uk^w>*

2.6 Syllabic consonants

Some coronal consonants could apparently occur as syllabic nuclei. They are reconstructed only at the left margin of words in grammatical prefixes, with very few exceptions. This distribution aligns well with one’s typological expectations: cross-linguistically, syllabic consonants are known to be preferred in grammatical affixes and at word edges (Bell 1978: 159–161). The inventory of syllabic consonants in our reconstruction is, however, rather surprising from a typological point of view: alongside the cross-linguistically common syllabic nasal **ŋ* we posit two syllabic obstruents, **ʔ* and *ʔ*. This counters Bell’s (1978) generalization whereby “[i]f a language possesses syllabic obstruents, it possesses syllabic *s* or *ʃ* [IPA [ʃ] – A.N., J.C.], given that it has nonsyllabic *s* or *ʃ* [IPA [ʃ] – A.N., J.C.]”: note that Proto-Mataguan clearly had a **s*, but we have found no solid evidence to support the reconstruction of **ʃ*.¹⁰ Be that as it may, at this time we are unable to ascertain the details of phonetic implementation of the phonologically syllabic obstruents in Proto-Mataguan. At least **ʔ* must have been articulated with an audible release or with a transitional (intrusive) vowel, as syllabic voiceless stops must be released in order to be audible before another obstruent (Bell 1978: 185). This is indirectly supported by the reflexes in the daughter languages, where one frequently finds an epenthetic vowel continuing what may have been a PM intrusive vowel (that way, an erstwhile syllabic consonant is unpacked into a sequence of a consonant and a vowel, with the preservation of the mora associated with the consonant in PM). The insertion of a segment in these cases must have occurred independently in the daughter languages, because the individual languages differ regarding the exact conditions and quality of the inserted vowels.

¹⁰It is technically possible that some of the **sC* sequences that we reconstruct for Proto-Mataguan, as in PM **skä^ʔt* ‘mesh’ or **stwú^ʔn* ‘king vulture’, could have in fact involved a syllabic **ʃ*, as suggested by the fact that Maká, Chorote, and Wichí typically insert a vowel before or after the **s* in such words. However, it is equally possible to account for the evolution of these cognate sets by positing a non-syllabic **s* for Proto-Mataguan, as done in this book.

2.6.1 Syllabic *ɬ

Syllabic *ɬ occurs in a number of homophonous prefixes when they precede consonant-initial stems. These include the 3.POSS prefix, the 2.ACT prefix, and the feminine prefix in demonstratives. Before vowels, all of these prefixes surface as a regular (non-syllabic) *ɬ-. Before consonants, these prefixes constitute a syllable on their own in PM, as evidenced by their reflexes in the daughter languages (this does not include the position before a glottal stop, as PM *ɬ-ʔ coalesces into *ɬʔ-).

Table 2.4: PM prefixes of the shape *ɬ- and their reflexes

| PM | function | position | Maká | Nivačle | PCh | PW |
|---------|----------|----------|-------------------------------------|----------------------|----------------------------------|------------|
| *ɬ-V... | 3.POSS | before V | ɬ-V... | ɬ-V... | *hl-V... | *ɬ-V... |
| *ɬ-V... | 2.ACT | before V | ɬ-V... | ɬ-V... | *hl-V... | *ɬ-V... |
| *ɬ-V... | F.DEM | before V | — | — | *hl- | — |
| *ɬ-C... | 3.POSS | before C | ɬe-C... / ɬa-Ca... / ɬo-Co... | ɬ-C... / ɬa-CC... | *h ^ə -C... | *ɬ-C... |
| *ɬ-C... | 2.ACT | before C | ɬe-C... / ɬa-Ca... / ɬo-Co... | ɬ-C... / ɬa-CC... | *h ^ə -C... | *ɬ-C... |
| *ɬ-C... | F.DEM | before C | — | ɬ-C... | *ha-C... | — |
| *ɬ-ʔ... | 3.POSS | before ʔ | ɬ-ʔ... | t-ʔ... | *t-ʔ... | *t-ʔ... |
| *ɬ-ʔ... | 2.ACT | before ʔ | ʔ | t-ʔ... | *<h ^ə >t- , ... | *<ɬ>t-ʔ... |

In Maká, the third-person possessive and the second-person active prefixes both surface as ɬ- before vowels (1278), whereas before consonants ɬe- is found; in the latter case the prefix vowel harmonizes to *a* or *o* if the next syllable contains a low vowel (Gerzenstein & Gualdieri 2003: 106–107), as in (1279). Before Mk ʔ, the third-person possessive prefix surfaces as ɬ-, a combination claimed to involve a syllabic ɬ by Gerzenstein (1989: 67) and transcribed as *ɬʔ- in this book (1280). The feminine prefix in demonstratives is not preserved in Maká.

(1278) Maká (Gerzenstein 1994: 85, 91, 148)

- a. ɬ-uk
3.POSS-grandson
'his/her grandson'

2 Consonants

- b. ʎ-exi?
3.POSS-mouth
'his/her mouth'
- c. ʎ-otoj
2.ACT-dance
'you dance'
- d. ʎ-ija
2.ACT-drink
'you drink'

(1279) Maká (Gerzenstein 1994: 85, 88, 148)

- a. ʎe-k'inix
3.POSS-younger_brother
'his/her younger brother'
- b. ʎo-noki?
3.POSS-elbow
'his/her elbow'
- c. ʎe-fejeki?
2.ACT-rotate
'you rotate'
- d. ʎa-ma?
2.ACT-sleep
'you sleep'

(1280) Maká (Gerzenstein 1994: 68)

- a. ʎ-'i?
3.POSS-juice
'its juice'

In Nivaçle, according to Gutiérrez (2015b: 59, 62, 230–231), the third-person possessive and the second-person active prefixes surface as ʎ- before vowels (1281) and before simplex onsets, a position where the prefixes in question are likely to form a syllable on their own (1282). (The feminine prefix in demonstratives, which only occurs before consonants, also surfaces as ʎ-.) Before consonant clusters, ʎa- is found (1283). If the stem starts with a glottal stop, the prefixes in question coalesce with them as t-' (1284).

(1281) Nivaçle (Gutiérrez 2015b: 59, 62)

- a. ʔ-áse
3.POSS-daughter
'his/her daughter'
- b. ʔ-ám
2.ACT-come
'you come'
- (1282) Nivaçle (Gutiérrez 2015b: 59, 62, 99, 231)
- a. ʔ-t'óx
3.POSS-aunt
'his/her aunt'
- b. ʔ-klíʔ
3.POSS-word
'his/her word'
- c. ʔ-péʔja
2.ACT-listen
'you listen'
- d. ʔ-pa
F-DEM.NFH
'that (feminine, never seen by the speaker)'
- (1283) Nivaçle (Gutiérrez 2015b: 59, 62, 231)
- a. ʔa-ktéʔtʃ
3.POSS-grandfather
'his/her grandfather'
- b. ʔa-φxúx
3.POSS-toe
'his/her toe'
- c. ʔa-ktfáʔ
2.ACT-paddle
'you paddle'
- (1284) Nivaçle (Gutiérrez 2015b, Seelwische 2016: 123)
- a. t-ʔíʔ
3.POSS-liquid
'its broth'

2 Consonants

- b. t'ɛφén
2.ACT-help
'you help'

In Chorote, the third-person possessive, the second-person active prefixes, and the feminine prefix in demonstratives surface as *hl-* before vowels or *h-*initial stems (1285) but as *hi-* before supraglottal consonants (1286). The *i* in the latter case goes back to the intrusive vowel *^ə, as it causes the second palatalization but not the first palatalization in Chorote (see §8.2.1). If the stem starts with a glottal stop, the third-person possessive prefix coalesces with it as *t-* and the second-person active prefix as *hit-*' (1287).

(1285) Iyojwa'aja' (Drayson 2009: 132, 161, 169)

- a. hl-ʃt
3.POSS-scales
'its scales'
- b. hl-ʃh
2.ACT-shovel
'you shovel'
- c. hl-aha
F-DEM:not_visible
'that.F (not visible)'

(1286) Iyojwa'aja' (Drayson 2009: 113, 122, 169)

- a. hi-k'óʔ
3.POSS-hand
'his/her hand'
- b. hi-t'jét-e
2.ACT-throw-APPL
'you throw it for her/him'
- c. ha-na
F-DEM:outside_hands'_reach
'this.F (outside one's hands' reach)'

(1287) Iyojwa'aja' (Drayson 2009: 156)

- a. t-'ʃt
3.POSS-breast
'her/his breast'

- b. hit-’íjasa’n
 2.ACT-teach
 ‘you teach’

In Proto-Wichí, the third-person possessive and the second-person active prefixes surface as *t- before vowels, as in (1288)–(1289), but as *t̥- before supraglottal consonants, as in (1290)–(1291). If the stem starts with a glottal stop, the third-person possessive prefix coalesces with it as *t-’ and the second-person active prefix as *t̥t-’ (1292). In the contemporary Wichí dialects, PW *t̥ is variously reflected as *la*, *le*, or *ha* (see §9.2.1.13). The feminine prefix in demonstratives is not preserved in Wichí.

(1288) ’Weenhayek (Claesson 2016: 234, 550)

- a. t̥-áwoʔ
 3.POSS-flower
 ‘its flower’
 b. t̥-ok
 2.ACT-say
 ‘you say’

(1289) Lower Bermejeño Wichí (Nercesian 2014: 166, 226)

- a. t̥-omet
 3.POSS-word
 ‘her/his word’
 b. t̥-otaχ
 2.ACT-be_fat
 ‘you are fat’

(1290) ’Weenhayek (Claesson 2016: 220, 438)

- a. la-p’ot
 3.POSS-lid
 ‘its lid’
 b. la-t-’ek
 2.ACT-T-eat
 ‘you eat’

2 Consonants

(1291) Lower Bermejeño Wichí (Nercesian 2014: 163, 237)

- a. la- η es
3.POSS-nose
'her/his/its nose'
- b. la-ta-qatay
2.ACT-T-cook
'you cook'

(1292) 'Weenhayek (Claesson 2016: 96, 123)

- a. t-'áte?
3.POSS-breast
'her breast'
- b. lat-'é'
2.ACT-be_tired
'you are tired'

The allomorphs of the 2.ACT prefix before a η -initial stem in Chorote (Ijw/Mk *hit*-... < PCh **h²t*-'...) and 'Weenhayek ('Wk *lat*-... < PCh ** η t*-'...) likely result from a morphological innovation whereby the inherited reflex **t*-... was augmented by ** η* , the allomorph of the same morpheme found in consonant-initial stems.

2.6.2 Syllabic **n*

The reconstruction of a syllabic **n* for Proto-Mataguayan remains rather tentative. The first piece of evidence comes from the allomorphy patterns of several homophonous prefixes.

- (1293) PM ** η - / *n- / * η n-* '3.A/S_A.IRR' > Mk *ne-* / *n-* • Ni *na-* / *n-* • PCh ** η n-* / **n-* / ** η n-* • PW **ní-...-a η* / **n'-...-a η* / ** η n'-...-a η*
- (1294) PM ** η - / *n- / * η n-* 'indefinite possessor' > Mk *n-* • Ni *na-* / *n-* • PCh ** η n-* / **n-* / ** η n-*
- (1295) PM ** η - / *n- / * η n-* '2.P/Sp.RLS' > Mk < *η e*>*n-* / < *η a*>*n-* / < *η o*>*n-* • Ni *na-* / *n-* • PCh ** η n-* / **n-* / ** η n-*

The 3.A/S_A.IRR and indefinite possessor prefixes both surface as *n-* before vowel-initial stems in all contemporary Mataguayan languages (except Iyojwa'aja' and Manjui), but a moraic allomorph is found before supraglottal consonants (Mk *ne-*; Ni *na-*; I'w *in-* ~ *η -*; 'Wk *ní-*, LB *ni-* < PW **ní-*). The 2.P/Sp.RLS

follows a similar pattern, except that in Maká the prefix was augmented by the element *ʔe-* / *ʔa-* / *ʔo-* and is never moraic. At least in Chorote and 'Weenhayek, the prefixes in question fuse with the initial glottal stop of stems that start with a *ʔ* as *ʔn*.

The following examples show Mk *n-* occurring before vowel-initial (1296) and consonant-initial (1297) stems.

(1296) Maká (Gerzenstein 1994: 90–91, 147, fn. 41)

- a. *n-aqfinet*
G_{NR}-pestle
'pestle'
- b. *n-ija*
3.A/S_A-IRR-drink
'(that) s/he drink'
- c. *n-ek'uwet*
3.A/S_A-IRR-get_drunk
'(that) s/he get drunk'

(1297) Maká (Gerzenstein 1994: 85–86, 96)

- a. *ne-tux*
3.A/S_A-IRR-eat.TR
'(that) s/he eat it'
- b. *no-t-otoj*
3.A/S_A-IRR-3.INTR-dance
'(that) s/he dance'
- c. *na-wanqa*
3.A/S_A-IRR-wash_hands
'(that) s/he wash their hands'

The following examples from Nivaçle show the allomorph Ni *n-* occurring before vowel-initial (or *ʔ*-initial) stems (1298) and the allomorph *na-* preceding stems that begin with supraglottal consonants (1299).¹¹

(1298) Nivaçle (Campbell et al. 2020: 159, 256, 414)

¹¹Even before consonants, the 3.A/S_A-IRR prefix can surface as *n*; in this case it syllabifies as a coda of the irrealis conjunction *kaʔ*.

2 Consonants

- a. n-ʔaʔkʰij [nakʰi:]
G_{NR}-shoe
'shoe'
- b. n-uʔáx
2.P/S_P.R_{LS}-be_tired
'you are tired'
- c. n-ák
3.A/S_A.I_{RR}-go
'(that) s/he go'

(1299) Nivačle (Campbell et al. 2020: 255, 527)

- a. na-pánt'ax
2.P/S_P.R_{LS}-jump_well
'you can jump high'
- b. na-n-tʃa'x
3.A/S_A.I_{RR}-C_{ISL}-carry
'(that) s/he bring'

Of the Chorote varieties, Iyo'awujwa' is the one that best preserves the archaic allomorphy patterns. The following examples show the allomorph I'w *n-* occurring before vowel-initial stems (1300), I'w *ʔn-* before *ʔ*-initial stems (1301), and the allomorph *in-* ~ *n-* preceding stems that begin with supraglottal consonants (1302), with the alveolar nasal assimilating to *m* before the labial stop *p*.¹² The examples below are mostly from Gerzenstein (1983), but we have altered her transcriptions in order to match our conventions. (1300a) and (1301) are from Carol's field data; note that Gerzenstein (1983: 77) mistranscribes Iyo'awujwa' *ʔn* as *n* (*nóxteleʔ* 'heart', *naf^wés* 'body').

(1300) Iyo'awujwa' (Gerzenstein 1983: 77)

- a. n-óp'aleʔ
2.P/S_P.R_{LS}-hiccup
'you hiccup'
- b. n-é'leʔ
2.P/S_P.R_{LS}-be_dry
'you are dry'

¹²Other Chorote varieties have innovated in that the moraic allomorph *ʔin-* is now used there before vowel-initial stems. With *ʔ*-initial stems, however, one finds the non-moraic allomorph of the indefinite possessor prefix and, in some cases, of the 2.P/S_P.R_{LS} and 3.A/S_A.I_{RR} prefixes both in Iyojwa'aja' and Manjui.

- c. n-átah
2.P/Sp.RLS-be_fat
'you are fat'
- (1301) Iyo'awujwa'
a. n-ʔóhtelee [ʔnóhteleeʔ]
GNR-heart
'heart'
b. n-ʔahwís [ʔna'hwís]
GNR-body
'body'
- (1302) Iyo'awujwa' (Gerzenstein 1983: 69, 77)
a. ʔin-tówe
GNR-belly
'belly'
b. ʔ-tók^hoʔ
GNR-face
'face'
c. ʔ-póxs-ej
GNR-beard-PL
'beards'
d. ʔim-páxsat
GNR-lip
'lip'
e. ʔin-káhej
2.P/Sp.RLS-be_rich
'you are rich'
f. ʔin-tóʔjʔ
2.P/Sp.RLS-be_tall
'you are tall'
g. ʔin-hwíhl^hen
2.P/Sp.RLS-dream
'you dream'

In Wichí, the 3.A/S_A.IRR prefix is reflected as PW *n- before vowel-initial stems, as PW *ní- before stems that start with a supraglottal consonant, and as PW *ʔn- before ʔ-initial stems.

2 Consonants

(1303) 'Weenhayek (Claesson 2016: 125, 544)

- a. n(i)-ek^w-a [nē:k^(w)aʔ]
3.NEG.IRR-go-NEG.IRR
'lest s/he go'
- b. n(i)-t(a)-áhuj-a [nī:ta'hūjaʔ]
3.NEG.IRR-T-speak-NEG.IRR
'lest s/he speak'
- c. n(i)-ʔip-a [ʔnī:paʔ]
3.NEG.IRR-cry-NEG.IRR
'lest s/he cry'

Finally, syllabic **n* may have also apparently occurred as part of roots, as in the following example.

(1304) PM **ṛnāʔk* / **nnāʔk* 'spoon' > Mk *neneʔk* • PW **<ɫ>nnek* / *-<qá>nnek*

2.6.3 Syllabic **t*

Syllabic **t* is reconstructed for one morpheme, the T-class third-person prefix **t-* (in Nivaçle and Wichí, its reflex is also found in some other inflected forms and is best analyzed as a T-class marker rather than a person index). Before vowels, it surfaces as regular (non-syllabic) **t-* in Proto-Mataguayan and in all contemporary languages (this is also the allomorph used in Chorote with *h*-initial stems). Before supraglottal consonants, it has a moraic allomorph in almost all contemporary languages (which we reconstruct as PM **t̥-*), unless it can syllabify as a coda to a preceding morpheme. Nivaçle is an exception in that the moraic allomorph shows up only before *t*/'*t̥*', but not before other consonants. In stems that start with a glottal stop, PM **t̥-* coalesces into **t̥'*.

(1305) Maká (Gerzenstein 1999: 118, 121, 244, 329)

- a. t-altšaj
3.T-beget
'she begets'
- b. te-lixtšij
3.T-sing
's/he sings'
- c. ne-t-lixtšij
3.A/S_A.IRR-3.T-sing
's/he snores'

- d. t-'an
 3.T-win
 's/he wins'
- (1306) Nivačle (Seelwische 2016: 248, 266, 270, 282)
- a. t-itsin
 3.T-get_cured
 's/he gets cured'
- b. t-kłâ'j
 3.T-play
 's/he plays'
- c. ta-tj'an
 3.T-obey
 's/he obeys'
- d. ʎa-t-tj'an
 2.ACT-T-obey
 'you obey'
- e. Ø-t-'akut
 3-T-steal
 's/he steals'
- (1307) Iyojwa'aja' (Carol 2014b)
- a. t-ámtiʔ
 3.T.RLS-speak
 's/he speaks'
- b. ti-més
 3.T.RLS-be_two
 'they are two'
- c. ti-l'áki'n
 3.T.RLS-play/dance
 's/he plays/dances'
- d. ta-kásit
 3.T.RLS-stand
 's/he stands'
- e. t-'ósiʔ
 3.T.RLS-run
 's/he runs'

2 Consonants

(1308) Iyo'awujwa' (Gerzenstein 1983: 75)

- a. t-ákihnan
3.T.RLS-hunt
's/he hunts'
- b. ti-lák^hen
3.T.RLS-play
's/he plays'
- c. te-kénis^hen
3.T.RLS-sing
's/he sings'

(1309) Manjui (Carol 2018)

- a. t-án
3.T.RLS-shout
's/he shouts'
- b. t-hójʔ
3.T.RLS-return_home
's/he returns home'
- c. ti-khán
3.T.RLS-dig
's/he digs'
- d. t-'as
3.T.RLS-step
's/he steps'

(1310) 'Weenhayek (Claesson 2016: 375, 426, 431)

- a. Ø-t-útk^hejʔ
3-T-sow
's/he sows'
- b. Ø-ta-qásit
3-T-stand_up
's/he stands up'
- c. ʔō-t-qásit
1SG-T-stand_up
'I stand up'

- d. \emptyset -t-’át
 3-T-ask
 ‘s/he asks’
- (1311) Lower Bermejeño Wichí (Nercesian 2014: 239–240)
- a. \emptyset -t-af^wí
 3-T-cry
 ‘s/he cries’
- b. \emptyset -ta-qatin
 3-T-jump
 ‘s/he jumps’
- c. ŋ-t-qatin
 1SG-T-jump
 ‘I jump’
- d. \emptyset -t-’on
 3-T-shout
 ‘s/he shouts’

In Chorote and Wichí, there are prefixes of the same shape that present an identical allomorphy pattern. In Chorote, *t- / ti- / t’-* (in Iyojwa’aja’ also *ta-* before /k/) is used in the impersonal forms of verbs. In Wichí, the prefix *t- / ta-* is found in a closed set of nouns that denote body parts (Nercesian 2014: 164–165). It is, however, unclear whether they are related to the 3.T prefix of Proto-Mataguayan and whether they represent retentions or innovations.

2.6.4 Syllabic consonants as opposed to consonant clusters

An anonymous reviewer inquires whether what we reconstruct as syllabic consonants could be replaced with plain consonants as first members of consonant clusters. In this regard, it should be noted that the reflexes of syllabic consonants often contrast with those of word-initial non-syllabic consonants followed by another consonant.

For examples, PM **tk* and **ʔk* have distinct reflexes in varieties such as ’Wee-nhayek or Vejoz. PM **tk* is reflected as ’Wk *k^j* word-initially, as in PM **tkénaX₁₂* ~ **tkánaX₁₂* > ’Wk *k’éanax* ‘mountain, hill’. Conversely, PM **ʔk* is reflected as ’Wk *tak^j*, as in PM **ʔ-kúm=ex* > ’Wk *ta-k’úm=ex* ‘s/he grabs it’.

Similarly, the reflexes of PM **tl* contrast with those of PM **ʔl*. Word-initially the Proto-Mataguayan sequence **tl* evolves into Ni *takl̄* and ’Wk *til*, as in PM

2 Consonants

**tlúʔk* > Ni *takluʔk*, 'Wk *tilúk* 'blind'. By contrast, when PM **t̥* combines with an **l*-initial verbal root, one finds the reflexes Ni *tkl̄* (with loss of syllabicity), as in Ni *t-kláʔj* 's/he dances', and 'Wk *tal*, as in 'Wk *ta-líkʔiʔ* 'in good condition, not shabby'. Unfortunately, we do not know of any **l*-initial T-class verb reconstructible to Proto-Mataguyan.

The reconstruction of PM **ŋ* and **t̥* is less questionable than that of PM **t̥*, since these sounds are preserved even synchronically in some cases, as in I'w *ŋ-tókʔoʔ* 'face' or Ni *t̥-klíʔf* 'his/her word'.

3 Vowels

This chapter deals with the reconstruction of the Proto-Mataguayan vowels. We reconstruct an inventory composed of seven vowels (PM **i*, **e*, **ä*, **a*, **ã*, **o*, **u*), as discussed in §3.1–§3.7.

3.1 PM **i*

PM **i* is typically preserved as *i* in all daughter languages: Maká, Nivaçle, Proto-Chorote, and Proto-Wichí. In Maká, it merges with PM **e*, which also yields Mk *i* (see §3.2, §6.2.1). Irregular reflexes include Mk *u* in (39); PCh **a* in (4), probably due to a sporadic metathesis; and PW **u* in (51), **o* in (52)–(53). In (36), PM **i* is unexpectedly lost in Nivaçle, whereas the Maká form is restructured. The variation *i* ~ *e* in Nivaçle in (22) is likewise irregular.

- (1) PM **-á(-j^h)-xi?* (**-l*) ‘mouth’ > Mk *-e<xi?* (*-l*) • Ni *-a<fi* (*-k*) • PCh (?) **-á<aj?* • PW **-t-áj-hi* (**-l^h*)
- (2) PM **n-ájin* ‘to go first’ > Mk *[wa]<th>ajin* • Ni *n-ájin* • PCh **[?i]<n>ájin*
- (3) PM **-ánis* ‘stinger’ > Mk 3 *t-ani*’s • Ni 3 *t-ânis* • PCh 3 **hl-ânis* • PW (?) 3 **t-á’ni*
- (4) PM **-fáji’x* ‘right’ > Mk *-feji’x* ‘left’ • Ni *-faji’f* • PCh **-hwíjah*
- (5) PM **-fálits* ‘daughter-in-law, sister-in-law’ > Mk *-felits* • Ni *-faklis<?a>* ‘sister-in-law’ • PCh **-hwélis* ‘daughter-in-law’
- (6) PM **[ji]fi’j* ~ **[ji]fí’j* ‘not to be afraid’ > Ni *[ji]fi’j* • PCh **[?i]hwíj?* • PW **[?i]’x^wíj-eh*
- (7) PM **fi’jät* ‘cold weather, south wind’ > Ni *fi’jat* • PCh **hwi’jét* • PW **x^wi’jét*
- (8) PM **[ji]fi’k* ~ **[ji]fí’k* ‘to hide’ > Ni *[ji]fi’tf* • PCh **[?i]hwík*
- (9) PM **fínä(?)ç* ‘crab’ > Ni *finax* • PCh **hwíneh*
- (10) PM **fi’s* ‘leech’ > Ni *fi’s* • PW **x^wis*
- (11) PM **fis-kat* ‘palm grove (*Copernicia alba*)’ > Mk *fis-ket* • Ni *fis-tfat*

3 Vowels

- (12) PM *[j]ik ‘she/he goes away’ > Mk *ik* • Ni [j]itf • PW *[j]iq
- (13) PM *°[j]ip ‘she/he cries’ > Mk *ip* • Ni [j]ip • PW *°[j]ip
- (14) PM *-(i)ts’i(?) (*-l) ‘resin, sap’ > Ni *-its’i* (-k) • PCh 3 *hl-its’i? (*-l) • PW *~~l~~-its’i
- (15) PM *-(i)ts ‘PL’ > Mk *-(i)ts* • Ni *-(i)s* • PCh *-(i)s • PW *-(i)s
- (16) PM *jijá’ts ‘dew’ > Mk *ije’ts* • Ni *jija’s* • PCh *ʔijés-tah • PW *ʔijás
- (17) PM *jiju’s ~ *jijú’s ‘wax’ > Ni *jiju’s* • PCh *ʔijús
- (18) PM *jiná’t, *jinát-its ‘water’ > Ni *jiná’t*, *jinát-is* • PCh *ʔi’náat (*-es) • PW *ʔináat (*-es)
- (19) PM *{j/?}is{a/á/e}’χ ~ *{j/?}is{á/á/é}’χ ‘sand’ > Mk *isa’χ* • PCh *ʔisáh ~ *ʔisáh
- (20) PM *jixá(?) ~ *jixá(?) ‘to be true’ > Mk *ixa* • Ni *jixá?* • PCh *ʔihá<wet>
- (21) PM *-kíφah, *-kíφa-ts ‘neighbor’ > Mk *-kife* (-ts) • Ni *-tíφa* (-s) • PCh *~~k~~-kíhwah, *~~k~~-kíhwa-s
- (22) PM *~~k~~ilá? (*-wot) ‘elder brother’ > Ni *-tfeḱlá?* / *tḱilá-* (-βot) • PCh *~~k~~ilá? (*-wot) • PW *~~k~~íla
- (23) PM *~~k~~itá? (*-wot) ‘elder sister’ > Ni *-tḱita?* (-βot) • PCh *~~k~~itá? (*-wot) • PW *~~k~~íta
- (24) PM *~~k~~ínix, *~~k~~ínixi-ts ‘younger brother’ > Mk *-k’inix* • Ni *-tḱinif* • PCh *~~k~~ínih, *~~k~~íhni-s • PW *~~k~~’ínix, *~~k~~’inhi-s
- (25) PM *~~k~~ínxá? ~ *~~k~~ínxá? (*-wot) ‘younger sister’ > Mk *-k’inxá?* ~ *-k’inxa?* • Ni *-tḱinxá* (-βot) • PCh *~~k~~’ihná? (*-wot) • PW *~~k~~’ínhá
- (26) PM *láp’ih ~ *láf’ih ‘snail’ > Ni *ḱláp’i* • PCh *láp’ih
- (27) PM *lim ~ *lím ‘white’ > Ni *ḱlím* • PCh *lím-
- (28) PM *~~l~~i’x, *~~l~~ix-áj^h ‘language, word’ > Mk *-’lix<e?>* • Ni *-’ḱli’f*, *-’ḱlif-aj* • PCh *~~l~~’láh, *~~l~~’lih-áj^h
- (29) PM *~~l~~i’k ~ *~~l~~i’k, *~~l~~i-j^h ‘thread’ > Ni *-tḱi’tf*, *-tḱi-j<is>* • PCh *~~l~~hlik, *~~l~~hli-j^h
- (30) PM *mijó? (*-l) ‘savannah hawk’ > Mk *mijo* (-l) • Ni *mijo* (-k) • PCh *mijó? (*-l) • PW *mijóh
- (31) PM *(-)niják, *(-)nijhá-j^h ‘rope, cord’ > Mk *(-)nijak*, *(-)nijha-j* • Ni *-niják*, *-nijxá-j* • PCh *niják, *nihjá-j^h • PW *niják^w, *nijhá-j^h
- (32) PM *~~n~~ji’x ‘smell’ > Mk *-nji’x* • Ni *-ni’f* • PCh *~~n~~ih • PW *~~n~~ix
- (33) PM *[ji]nxi’wän ‘to smell’ > Mk [ji]nxi’wen • PCh *ʔi]hni’wen

- (34) PM *(-)'náji'x, *(-)'nájx-aj^h 'path' > Ni *náji'f*, (-)'náj^h-aj / -'náji'f • PCh *(-)'nájih, *(-)'nájh-aj^h • PW *(-)'nájiχ, *(-)'nájh-aj^h
- (35) PM *pitéχ, *pité-ts 'long' > Ni *pitex*, *pite-s* • PW *pitáχ, *pité-s
- (36) PM *[ji]pónit-ex 'to fill' > Mk [j]<o>pon-het-ix • Ni [ji]pont-ef • PCh *[ʔi]pónit-eh • PW *[ʔi]tá-ponit-eχ
- (37) PM *sténi(?) 'white quebracho' > Mk *sitin-u'k* • PCh *ʔsténi? • PW *ʔisté'nih
- (38) PM *tiφ ~ *tíφ 'to spend' > Ni *tiφ* • PCh *[ʔi]tím
- (39) PM *ti'φ 'to suckle' > Mk *tu'f* / -*tu'f* • Ni *ti'φ* • PCh *[ʔi]tím • PW *tip
- (40) PM *tijá'χ 'to shoot, to throw' > Mk *tija'χ* / -*tija'χ* • Ni *tijá'x* • PCh *[ʔi]tíjâh • PW *tijâχ
- (41) PM *-ti'ł 'to spin, to sew' > Mk [ji]tił • Ni *ti'ł* • PCh *[j]<á>tił
- (42) PM *tiłá'x 'to carry on one's shoulders' > Mk *tiłó'x* / -*tiłó'x* • Ni *tiłá'x* • PCh *[ʔi]tíhlâh • PW *tiłâχ
- (43) PM *tim 'to swallow' > Mk *tim-xu?* / -*tim-xu?* • Ni *tim* • PCh *[ʔi]tím • PW *tim
- (44) PM *tis 'to invite, to pay' > Mk *tis-ix* / -*tis-ix* • Ni *tis* • PCh *[ʔi]tís • PW *tis
- (45) PM *títe(?)k, *títthe-j^h 'plate' > Ni (-)titetf, (-)titxe-j • PCh *títek, *títthe-j^h
- (46) PM *ti'x 'to dig' > Mk *ti(?)x-APPL* / -*tí(?)x-APPL* • Ni *ti'f* • PCh *[ʔi]tíh-ij? • PW *tiχ
- (47) PM *-t'ij ~ *-t'íj 'to move' > Ni [βa]t'ij • PCh *[ʔi]t'ij?
- (48) PM *-t'íle? (*-j^h) 'rheum' > Mk -t'íli? (-j) • Ni -t'íkle (-j) • PCh *-t'íle-
- (49) PM *t'isâ? ~ t'isá? (*-l) 'cream-backed woodpecker (*Campephilus leucopogon*)' > Mk *t'isa?* (-l) • Ni *t'isâ?* (-k) • PCh *t'isâ? (-l)
- (50) PM *ts'áts'ih, *ts'áts'i-l 'rufous hornero' > Mk *ts'its'i* (-l) • Ni *ts'ats'i* (-k) • PCh *sát'ih • PW *táts'i
- (51) PM *wije? 'caraguatá (*Bromelia serra*)' > Ni *βije?* ~ *jije?* • PCh *wijé? • PW *'wuje(?)
- (52) PM *wósitsex 'black algarrobo fruit (*Prosopis nigra*)' > Mk *ositsaχ* • Ni *βaitsex* • PW *wósotsaχ
- (53) PM *wósits-u'k 'black algarrobo tree (*Prosopis nigra*)' > Mk *osits-u'k* • Ni *βaitse-juk* • PCh *wósis-uk • PW *wósots-uk^w

3 Vowels

- (54) PM $*-{}^{\circ}w\acute{h}i?$ ~ $*-{}^{\circ}w\acute{h}i?$, $*-{}^{\circ}w\acute{h}i$ -ts ‘rib’ > Mk $-{}^{\circ}we\acute{h}i?$ (-ts) • Ni $-{}^{\circ}\beta\acute{h}i / -\beta\acute{h}i?$ (-s) • PCh $*-h\acute{h}i<s>$
- (55) PM $*-x\acute{i}j^h$ ‘recipient’ > Mk $-xij$ • Ni $-fij / -xij$ • PW $*-h\acute{i}h$
- (56) PM $*\acute{r}\acute{a}n\acute{i}t\acute{i}h$ ‘wasp sp.’ > Ni $\acute{r}\acute{a}n\acute{i}t\acute{i}$ • PCh $*\acute{r}\acute{a}n\acute{i}t\acute{i}h$
- (57) PM $*-r\acute{i}$ (*-l) ‘liquid, juice’ > Mk 3 \acute{t} - $\acute{i}?$ (-l) • Ni $-r\acute{i}?$ (-k) • PCh $*-r\acute{i}?$ (*-l) • PW $*-t$ - $\acute{r}\acute{i}$ (*-l^h)
- (58) PM $*{}^{\circ}[j]im$ ‘to dry out’ > Mk $[j]im$ • Ni $[j]im$ • PCh $*{}^{\circ}[j]im$ -APPL • PW $*{}^{\circ}[j]im$
- (59) PM $*r\acute{i}s$ ‘good’ > Ni $r\acute{i}s$ • PCh $*r\acute{i}s$ • PW $*r\acute{i}s$
- (60) PM $*r\acute{i}t\acute{a}(\acute{r})\chi$, $*r\acute{i}t\acute{a}$ -ts ‘fire’ > Ni $r\acute{i}t\acute{a}\chi$, $r\acute{i}t\acute{a}$ -s • PCh $*r\acute{i}t\acute{a}h$, $*r\acute{i}t\acute{a}$ -s • PW $*r\acute{i}t\acute{a}\chi$, $*r\acute{i}t\acute{a}$ -s

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêlé, Chorote and Wichí), whose PM age is thus questionable.

- (61) PM $*[j]\acute{a}\phi\acute{t}i(\acute{r})\acute{t}$ ‘to spin’ > Mk $[j]\acute{a}\phi\acute{t}i(\acute{r})\acute{t}$ • Ni $[j]\acute{a}\phi\acute{t}i\acute{t}$
- (62) PM $*[j]\acute{a}t\acute{s}i(\acute{r})j$ ‘to spill’ > Mk $[j]\acute{a}t\acute{s}ij$ - $xu?$ • Ni $[j]\acute{a}t\acute{s}ij$
- (63) PM $*\phi\acute{a}xi(\acute{r})j$ ~ $*\phi\acute{ä}xi(\acute{r})j$ ‘green ameiva’ > Mk $fexij$ • Ni $\phi\acute{a}fij$
- (64) PM $*\phi\acute{i}l\acute{a}(\acute{r})X_{12}$ ‘pocote (*Solanum* sp.)’ > PCh $*hw\acute{i}l\acute{a}h$ • PW $*x^w\acute{i}l\acute{a}\chi$
- (65) PM $*-\phi\acute{i}l\acute{a}n$ ‘to dream’ > PCh $*[r\acute{i}]hw\acute{i}hlan$ • PW $*[t]x^w\acute{i}l\acute{a}n$
- (66) PM $*-\phi\acute{i}l\acute{ä}(\acute{r})k$ ‘dream’ > PCh $*-hw\acute{i}hlek$ • PW $*-x^w\acute{i}l\acute{e}q$
- (67) PM $*\phi\acute{i}n\acute{a}k$, $*\phi\acute{i}n\acute{h}\acute{a}$ - j^h ‘tobacco’ > Mk $finak$, $finha$ - j • Ni $\phi\acute{i}n\acute{a}k$, $\phi\acute{i}n\acute{x}\acute{a}$ - j
- (68) PM $*-\phi\acute{i}(\acute{r})?$ ‘foot’ > Mk $-f\acute{i}?$ • Ni $-p\acute{i}$ - k ’o ‘heel’
- (69) PM $*him$ (*-its) ‘coati’ > Mk him (-its) • Ni xim (-is)
- (70) PM $*(-)j\acute{i}pku?$ (*-l) ‘hunger’ > Mk $(-)j\acute{i}pku?$ (-l) • Ni $j\acute{i}pku?$ / $-j\acute{i}pku$ (-k)
- (71) PM $*j\acute{i}r\acute{i}x\acute{a}t\acute{a}\chi$, $*j\acute{i}r\acute{i}x\acute{a}t\acute{a}$ -ts ‘ocelot’ > Mk $i\acute{r}ix\acute{a}t\acute{a}\chi$, $i\acute{r}ix\acute{a}t\acute{e}$ -ts • Ni $j\acute{i}x\acute{a}t\acute{a}\chi$, $j\acute{i}x\acute{a}t\acute{a}$ -s
- (72) PM $*kt\acute{a}{}^{\circ}n\acute{i}h$ ‘Chaco tortoise’ > PCh $*kit\acute{a}{}^{\circ}n\acute{i}h$ • PW $*k\acute{t}\acute{a}{}^{\circ}n\acute{i}h$
- (73) PM $*[t]k\acute{r}ij$ ‘to spit’ > Mk $[te]k\acute{r}ij$ • Ni $[t]<{}^{\circ}a>k\acute{r}ij$
- (74) PM $*l\acute{a}t\acute{s}iki$ - ju ’ k ‘willow’ > Mk $l\acute{a}t\acute{s}iki$ - ju ’ k • Ni $k\acute{l}\acute{a}t\acute{s}iki$ - ju ’ k
- (75) PM $*-l\acute{i}{}^{\circ}w\acute{t}e?$ ‘heart’ > Mk $-l\acute{i}t\acute{i}?$ • Ni $-l\acute{i}{}^{\circ}\beta\acute{t}e$

- (76) PM *nĩlsa(?)X₁₂, *nĩlsX₁₃a-ts ‘white-lipped peccary’ > PCh *<ʔih>nĩlsah, *<ʔih>nĩlsa-s • PW *nĩlsaχ, *nĩtsha-s
- (77) PM *páʔjih ‘frog (*Leptodactylus* sp.)’ > PCh *páʔjih • PW *páʔjih
- (78) PM *[t]qási(?)t/-qási(?)t ‘to stand’ > PCh *[tʔ]qásit • PW *[t]qásit; IMP *qásit
- (79) PM *qatsíwo(?) ‘limpkin’ > PCh *qasíwo-<ʔoh> • PW *qatsíwo
- (80) PM *sijá(?)χ, *sijáχ-is ‘fish sp.’ > Mk *sija*(?)χ, *sija*χ-its • Ni *sijāx* (-is)
- (81) PM *silóʔtáφV[?] ~ *siwóʔtáφe ‘Caatinga puffbird’ > PCh *silóʔtáhWV? • PW *siwótáx^we
- (82) PM *tiʔj ‘to weave’ > Mk *tij* / -*tij* • Ni *tiʔj*
- (83) PM *wkína(?)X₁₂, *wkínX₁₃a-ts ‘metal’ > PCh *wʔkínah, *wʔkínha-s • PW *kʔinaχ, *kʔinha-ts
- (84) PM *wópʔih ~ *wóφʔih[?] ~ *mópʔih ~ *móφʔih ‘white egret’ > PCh *wópʔih • PW *mópʔi
- (85) PM *-ʔá(?)l, 3 *ʔ[j]i(?)l ‘to die’ > PCh *ʔ[j]á(?)l • PW *ʔ[j]il^h
- (86) PM *jiʔno, *jiʔnó-l ‘man’ > PCh *ʔiʔnóʔ (*-l) • PW *hiʔno, *hiʔnó-l^h
- (87) PM *ʔutsi(h) (*-l) ‘eel’ > Mk *utsi* (-l) • Ni *ʔutsi* (-k)

In Chorote and Wichí, PM *i lowers to *e before *ts, provided that there is a low vowel in the preceding syllable. This regularly happens when the syllable has *t as the onset, but one example with PM *x > PCh/PW *h has also been identified.¹ This proposed sound change admittedly lacks a clear phonetic motivation, but it still seems to be regular. As a consequence, the nominal plural suffix -is in the contemporary Chorote and Wichí varieties shows the allomorph -es, an alternation best described as an instance of progressive height harmony in these languages.

- (88) PM *-át-its ‘drink.PL’ > Ni *-át-is* • PCh *-át-es
- (89) PM *jinát-its ‘water.PL’ > Ni *jinát-is* • PCh *ʔiʔnát-es • PW *ʔinát-es
- (90) PM *qatiʔts, *qatits-él ‘star’ > Ni *katiʔs* • PCh *qatés, *qates-él • PW *qates, *qatéts-el^h

¹A somewhat similar change has affected the nominal plural suffix PM *-its in some Nivaêlé varieties: in the Shichaam Lhavos dialect, -is varies with -es after coronals, whereas in the Chishamnee Lhavos dialect the allomorph -es may be found even after consonants such as p (Gutiérrez 2015b: 276–277).

3 Vowels

(91) PM *...X₂₃aʔt-its ‘earth.PL’ > Ni <kots>xat-is • PCh *<ʔa>h<n>át-es ~ *<ʔã>h<n>át-es • PW *<hon>hat-es

(92) PM *-ʔãx-its ‘skins, barks’ > Mk -ʔax-its • Ni -ʔãx-is • PCh *-ʔãh-és • PW *-t-ʔãh-és

The examples below show that word-initial instances of PM *ji > *ʔi changed to PCh *ʔa and PW *ha preceding a glottalized consonant followed by a low vowel (§8.1.2.4, §9.1.2.4).

(93) PM *jiʔjãʔX₁₂ ‘jaguar’ > Ni jiʔjãʔx • PCh *ʔaʔjãh • PW *haʔjãχ

(94) PM *jiʔlãʔ, *jiʔlá-jʰ ‘tree’ > Ni jiʔklãʔ (-j) • PCh *ʔaʔláʔ (*-jʰ) • PW *haʔlá, *haʔlá-jʰ

(95) PM *jitʔáʔ, *jitʔá-l ‘vulture’ > Ni jitʔáʔ (-k) • PCh *ʔatʔáʔ (*-l) • PW *hatʔáʔ(?)

3.2 PM *e

PM *e is typically preserved as e in Nivaçle, Proto-Chorote, and Proto-Wichí. In Maká, it yields i and thus merges with PM *i. In Chorote and Wichí, it merges with PM *ã instead. Special reflexes of PM *e are found before the uvular fricative PM *χ, as discussed later in this section. Some representative examples follow. Note the irregular reflexes in Maká in (138), in Nivaçle in (144), and in Chorote in (101).

(96) PM *-ajeʔk ~ *-ajéʔk ‘honey comb’ > Ni -ajeʔtf • PCh *-q-ájek

(97) PM *-áseʔ ‘daughter’ > Mk -asiʔ • Ni -áse • PCh *-áseʔ • PW *-t-áse

(98) PM *-e, *-é-l ‘thorn’ > Mk 3 t-iʔ • Ni -eʔ (-k) • PCh 3 *hl-éʔ (*-l) • PW *-t-e

(99) PM *-éj (*-its) ‘name’ > Mk -ij (-its) • Ni -ej (-is) • PCh *-éjʔ (*-is) • PW *-t-éj (*-is)

(100) PM *-ejʰ ‘APPL:DISTAL’ > Mk -ij • Ni -ej • PCh *-ejʰ • PW *-ejʰ

(101) PM *(-)ʔetek ~ *-éte- ~ *-eté- ‘mortar’ > Mk (-)ʔitik • Ni -ʔetetf • PCh *(-)hwVhlek • PW *xʷéteq

(102) PM *(-)ʔétãʔts ‘root’ > Mk fitets • Ni -ʔetaʔs • PCh *-hwétus • PW *(-)xʷétes

(103) PM *ʔkéna(?)χ ‘north wind, north’ > Ni ʔifenax • PCh *hwʰkénah

(104) PM *(-)háqkeʔ ‘well’ > Mk haqqiʔ ‘river’ • Ni -xáke ‘dry well’ • PCh *-háákeʔ ‘artificial well’

(105) PM *kʰékʰeh ‘monk parakeet’ > Ni tʰetʰe • PCh *kékʰeh • PW *kʰékʰe

- (106) PM *[ji]kén ‘to send’ > Mk [j]<u>kin • Ni [ji]tfen • PCh *[ʔi]kén • PW *[ʔi]k^jén
- (107) PM *-keʔ (*-j^h) ‘feminine’ > Mk -kiʔ (-j) • Ni -tfe / -ke (-j) • PCh *-keʔ (*-j^h) • PW *-k^je (*-j^h)
- (108) PM *-kʰeʔ (*-j^h) ‘ear’ > Mk -kfiʔ (-j) • Ni -kʰeʔ (-j) • PW *-(t-)k^we<j> / *-(t-)k^we- ‘arm, hand’
- (109) PM *-k^ʰáxeʔ (*-l) ‘arrow’ > Mk -qaxiʔ (-l) • Ni -k^ʰáxe • PCh *-k^ʰáheʔ (*-l) • PW *-k^jáhe (*-l^h)
- (110) PM *lätseniʔ ‘chañar fruit’ > PCh *létseniʔ • PW *létseʔnih
- (111) PM *lätsen-uʔk ‘chañar plant’ > Mk <xu>letsin-uʔk • PCh *léseni-k • PW *létsen-uk^w
- (112) PM *-lés ‘offspring’ > Mk -lits • Ni -k^les • PCh *-lés • PW *-lés
- (113) PM *[ji]léʔx ‘to wash’ > Mk [ji]lix-uʔ ‘to clean’ • Ni [ji]k^léʔf • PCh *[ʔi]léh • PW *[ʔi]léχ
- (114) PM *lkéte ‘squash’ > Mk lekiti • PCh *kéteʔ
- (115) PM *(-)lútseʔx, *(-)lútsxe-ts ‘bow’ > Ni k^lutseʔf / -k^lutseʔf, (-)k^lutseʔs • PCh *(-)lúseh (*-es) • PW *(-)lútseχ, *(-)lútse-s
- (116) PM *t^let ‘white snail’ > Ni t^let • PW *t^let
- (117) PM *(-)t^lét ‘firewood’ > Mk t^lit<u>ʔ • PCh *-<ʔa>hlét ~ *-<ʔa>hlét • PW *-t^lét
- (118) PM *meʔ(?) ~ *méʔ(?) ‘otter’ > Mk miʔ • Ni meʔ • PCh *méʔ
- (119) PM *nǎnǎxteʔ ‘tapeti rabbit, cavy’ > Mk nijaxtiʔ • Ni nǎnǎxate • PCh *nǎhǎteʔ • PW *xⁿáte
- (120) PM *[ji]péʔj-aʔ ‘to hear’ > Mk [ji]piʔj-eʔ • Ni [ji]peʔj-a • PCh *[ʔi]péʔj-aʔ
- (121) PM *péʔtaʔj, *péʔtaj-its ‘rain’ > Mk piʔej (-its) • PCh *péhlayʔ • PW *péʔtaj^h, *péʔtaj-is
- (122) PM *-peʔ(?), *-pé-l ‘fat’ > Ni -<a>peʔ (-k) • PCh *-péʔ (*-l) • PW *-peʔ(?)
- (123) PM *-pxúseʔ (*-j^h) ‘beard’ > Mk -<a>pxusiʔ (-j) • Ni -páse (-j) • PCh *-púseʔ (*-j^h) • PW *-páse (*-j^h)
- (124) PM *-qéj (*-its) ‘custom’ > Ni -kej (-is) • PCh *-qéjʔ (*-is) • PW *-qéj (*-is)
- (125) PM *[ji]selán ‘to spank’ > Mk [j]<eq>silan ‘to spank’ • PCh *[ʔi]selán ‘to store’; *[ʔi]selán-eh ‘to prepare’

3 Vowels

- (126) PM *sténi(?) ‘white quebracho’ > Mk *sitin-uʔk* • PCh *ʔsténi? • PW *ʔistéʔnih
- (127) PM *-tátse?(*-j^h) ‘eyelash’ > Mk *-tetsi?(-j)* • Ni *-tátse(-j)* • PCh *-táse?(*-j^h)
- (128) PM *-teʔ, *-té-j^h ‘eye’ > Mk *-t<oʔ>(-j)* • PCh *-ta-té? (*-j^h) • PW *-t(a)-te? (*-j^h)
- (129) PM *títe(ʔ)k, *títthe-j^h ‘plate’ > Ni (-)titetf, (-)titxe-j • PCh *títek, *títthe-j^h
- (130) PM *-t(á)ko-se?(*-j^h) ‘eyebrow’ > Mk *-tko-si?(*-j)* • PCh *-tóko-se?(*-j^h) • PW *-tákJo-se (*-j^h)
- (131) PM *-tséwte(?) (*-j^h) ‘tooth’ > Ni *-tseβte(-j)* • PW *-tsóte (*-j^h)
- (132) PM *-t’é-l ‘tears’ > Mk *-t’i-l* • Ni *-t’e<k̄l>-is* • PCh *-t’é<l>-is
- (133) PM *-t’íle? (*-j^h) ‘rheum’ > Mk *-t’ili?(-j)* • Ni *-t’ik̄le(-j)* • PCh *-t’íle-
- (134) PM *wijeʔ ‘caraguatá (*Bromelia serra*)’ > Ni *βijeʔ~jijeʔ* • PCh *wijéʔ • PW *ʔwuje(?)
- (135) PM *-w(t)s’é (*-l) ‘belly’ > Ni *-βts’e(-k)* • PCh *-ts’é? (*-l) • PW *-ts’é (*-l^h)
- (136) PM *ʔwäleʔk ‘to walk’ > Mk *-<i>ʔwelki-ʔmet* ‘to limp’ • Ni *βak̄leʔtf* • PCh *ʔiʔwélek • PW *ʔweleq
- (137) PM *-xáteʔk, *-xátthe-j^h ‘head’ > Ni *-fateʔtf, -fatxe-s* • PCh *-hétek, *-héhte-j^h • PW *-t-éteq, *-t-éthe-j^h
- (138) PM *xéjãʔ (*-l) ‘bat’ > Mk *xajaʔ(-l)* • Ni *fejã(-k)* • PCh *<ʔa>héjaʔ (*-l)
- (139) PM *xélã-juʔk ‘tree sp.’ > Ni *fek̄lã-juk* • PCh *hél-ek • PW *hél-ek^w
- (140) PM *(-)X₂₃pél ‘shadow’ > Ni *xpek* • PCh *-pél • PW *hpél^h / *hpel^h
- (141) PM *X₂₃wéʔlah, *X₂₃wéʔla-ts ‘moon’ > Ni *xibeʔla(-s)* • PCh *wéʔlah, *wéʔla-s • PW *xwéʔlah
- (142) PM *ʔaqájeʔk ‘wild honey’ > Ni *ʔakájetf* • PW *ʔaqájeq
- (143) PM *-ʔáX₂₃te(?) (*-j^h) ‘female breast’ > Ni *-ʔaxte(-j)* • PCh *-ʔáhate? (*-j^h) • PW *-t-’áte (*-j^h)
- (144) PM *ʔéjaʔ (*-l) ‘mosquito’ > Mk *ijeʔ(-l)* • Ni *jijaʔ* • PCh *ʔéjaʔ (*-l)
- (145) PM *ʔ[j]éjxãts-han ‘to teach’ > Mk *[j]ixats<hen>* • Ni *[j]ejxats-xan / -ʔejxats-xan* • PCh *ʔ[j]éjãhã<an>
- (146) PM *ʔéle(?) ‘parrot’ > Ni *ʔek̄le* • PCh *ʔéle? • PW *ʔéle
- (147) PM *-ʔet ~ *-ʔet̄ ‘other’ > Ni *-ʔet̄* • PW *-ʔet̄ ~ *-ʔet̄

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (148) PM *-áte(?) (*-j^h) ‘jar’ > PCh *-áte? (*-j^h) • PW *^{<xj>}áte (*-j^h)
- (149) PM *-éle(?) ~ *-ále(?) (*-j^h) ‘inhabitant, inner’ > PCh *-éle? (*-j^h) ‘inhabitant, intestine’ • PW *-t-éle (*-j^h)
- (150) PM *-kéjá(?) (f.), *-kéjáts (m.), *-ké(j)tsá-ts (pl.) ‘grandchild’ > PCh *-kéjá?, *-kéjáts, *-kétsás • PW *-k’ejá, *-k’ejáts, *-k’étsás
- (151) PM *-k’óX₂₃te(?) (*-j^h) ‘ear’ > PCh *-k’óote? (*-j^h) • PW *-k’j’óte (*-j^h)
- (152) PM *k’unhate-nha? ‘pacu fish’ > Mk <i>k’unhete-nhe? (-j) • Ni k’unxate<nxa> (-j)
- (153) PM *-tí’wte? ‘heart’ > Mk -titi? • Ni -ti’βte
- (154) PM *púle(?) (*-ts) ‘sky, cloud’ > PCh *púle? (*-s) • PW *púle (*-s ~ *-tájis)
- (155) PM *-qátsile(?) (*-j^h) ‘guts’ > PCh *-qátsile-j^h • PW *-qátsle-j^h
- (156) PM *stáfle(?) ‘Chaco chachalaca’ > PCh *ʔstáhwe? • PW *ʔistáx^we
- (157) PM *[ji]t’ex ‘to say’ > Mk [ji]t’ix • Ni [ji]t’ef
- (158) PM *wapen ~ *wäpen ‘to be ashamed’ > Mk wepin • Ni βapen
- (159) PM *(?)wáse? ‘cloud’ > Mk wasi? • Ni βáse?
- (160) PM *wé’[?]t=a? ‘one’ > Mk <e>wi’[?]t-e? • Ni bé’[?]t<a> / -[?]bé’[?]t<a>
- (161) PM *-[?]wóle(?) ‘leaf, hair, feather’ > PCh *-[?]wóle? • PW *-[?]wóle
- (162) PM *-xéle? ‘dirt’ > Mk -xili? • Ni -fekle
- (163) PM *ʔáfte’l ‘orphan’ > Mk afti’l • Ni ʔáfte’k
- (164) PM *ʔ[j]óp’ale(?) ‘to hiccup’ > Ni [j]op’akle / -ʔop’akle ‘to choke’ • PCh *ʔ[j]óp’ale? • PW *ʔ[j]óp’le
- (165) PM *-ʔó’thale(?) ~ *-ʔó’thále(?) ‘heart’ > PCh *-ʔóhtale? ~ *-ʔóhtále? • PW *-t-’ótle

Before the uvular fricative PM *χ, the vowel *e has a special lowered reflex in all languages except Nivaçle: Mk a (rather than i), PCh *a (rather than *e), and PW *a (rather than *e).

- (166) PM *ʔ[j]át(e[?])χ ‘to be fat’ > Ni [j]átex • PCh *ʔ[j]átah • PW *ʔ[j]átax
- (167) PM *páttsex ‘jabiru’ > Ni pátsex • PCh *pátsáh • PW *pátsáχ

3 Vowels

- (168) PM **pátse*([?]) χ ‘fast, quick’ > Ni *pátsex* • PCh *(-)*pásah*
- (169) PM **pité* χ , **pité-ts* ‘long’ > Ni *pitex*, *pite-s* • PW **pitá* χ , **pité-s*
- (170) PM **tsé* χ -APPL ‘full (river)’ > Ni *tsex-APPL* • PCh *-*sáh* • PW **tsá* χ -APPL
- (171) PM **wósitsex* ‘black algarrobo fruit (*Prosopis nigra*)’ > Mk *ositsa* χ • Ni *βaitsex* • PW **wósotsa* χ
- (172) PM **áwu*(C)*tsex* ‘peccary’ > Ni *ʔabuktsex* ~ *ʔaboktsex* • PCh **áwusah* • PW **áwutsa* χ
- (173) PM **ʔá*[?]*jte* χ , **ʔá*[?]*jte-ts* ‘to hurt’ > Mk *aʔta* χ , *aʔti-ts* • Ni *ʔá*[?]*jtex* ~ *ʔá*[?]*βtex* • PCh **ʔájʔtah-APPL*, *-*ʔájʔte-s-APPL* • PW **ʔájta* χ , **ʔájte-s*
- (174) PM **ʔál*(V)*tse*([?]) χ , **ʔál*(V)*tse-ts* ‘cháguar (*Deinacanthon urbanianum*)’ > Ni *ʔáktsex*, *ʔáktse-s* • PCh **ʔál*[?]*sah*, **ʔál*[?]*se-s* • PW **ʔáletsa* χ
- (175) PM **ʔánhajex* ‘wild bean (*Capparis retusa*)’ > Mk *anhaja* χ • Ni *ʔánxajex* • PCh **ʔóhnajah* • PW **ʔánhaja* χ
- (176) PM **ʔaX₁₃áj*([?]) χ ‘mistol fruit’ > Ni *ʔaxájex* • PCh **ʔahájah* • PW **ʔahájaja* χ
- (177) PM **ʔuwáte*([?]) χ [?] **C*[?]*uwáte*([?]) χ ‘puma’ > Ni <*xum*>*p’uβatex* • PCh **k’uwáhlah* • PW **ʔowáta* χ [?] **C*[?]*owáta* χ

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaêle, Chorote and Wichí), whose PM age is thus questionable.

- (178) PM *(-)*tútse*([?]) χ ‘smoke’ > PCh *(-)*túсах* • PW *(-)*tútsa* χ
- (179) PM **ʔáthajex* ~ **ʔáthäjex* ‘molle fruit’ > Mk *atheja* χ • Ni *ʔátxajex*

If a consonant intervenes between the target vowel and the uvular trigger, the lowering occurs only in Maká (but not in Chorote and Wichí), and in that case the outcome is Mk *e* (rather than *i*, as in non-lowering environments, or *a*, as when a uvular consonant is adjacent to the vowel).

- (180) PM **kétxa-ju*^k, **kétxa-jku-j^h* ‘red quebracho’ > Mk *keṭe-jku* • Ni *tfeṭxa-juk*, *tfeṭxa-ku-j* • PCh **kéhla-juk* / **kéhla-jku-* • PW **k’éṭ-juk^w*, **k’éṭ-k’u-j^h*

The lowering induced by the uvular fricative left behind a number of synchronically active alternations in Maká, Chorote, and Wichí. In forms that go back to PM etyma with a * χ , the lowering applies, and one finds Mk *a*, PCh **a*, PW **a*.

By contrast, the reflexes of PM forms derived from the vocalic stems of the same etyma (see §5.2.2) show no lowering, because PM * χ was absent in the respective protoforms. Consequently, one finds Mk *i*, PCh **e* (raised to *i* in the unstressed position in the contemporary varieties), PW **e*. Some examples are given in (181)–(185).

- (181) Maká (Gerzenstein 1999: 121, 130, 183)
- a. *anheja χ* ‘wild bean’ → *anheji-ʔp* ‘wild bean season’
 - b. *aʔta χ* ‘it hurts’ → *aʔti-ts* ‘they hurt’
 - c. *i-fʼilxetsa χ* ‘poor.SG’ → *i-fʼilxetsi-ts* ‘poor.PL’
- (182) Iyojwa’aja’ (Drayson 2009: 96, 143, 144)
- a. *pánsa* ‘fast, quick.SG’ → *pánsi-s* ‘fast, quick.PL’
 - b. *p’élis’e* ‘poor.SG’ → *p’ihlʷúxsi-s* ‘poor.PL’
 - c. *ʔáʔtʰeh-eʔ* ‘it hurts’ → *ʔáʔti-s-i* ‘they hurt’
- (183) Iyo’awujwa’ (Gerzenstein 1983: 120, 166)
- a. *álisha* ‘cháguar.SG’ → *álishi-s* ‘cháguar.PL’
 - b. *tóxxa* ‘smoke.SG’ → *tóxxi-s* ‘smoke.PL’
- (184) Manjui (Carol 2018)
- a. *p’ilisáh* ‘poor.SG’ → *p’ilisé-s* ‘poor.PL’
- (185) ʷweenhayek (Claesson 2016: 8, 92, 293, 297, 426)
- a. *pitáx* ‘long.SG’ → *pité-s* ‘long.PL’
 - b. *p’alítsax* ‘poor.SG’ → *p’alítse-s* ‘poor.PL’
 - c. *(-)tútsax* ‘smoke’ → *tútse-tax* ‘mist’
 - d. *ʔájtax* ‘it hurts’ → *ʔájte-ts* ‘they hurt’

In two examples, PM **e* appears to have acquired rounding in Chorote and Wichí before a cluster with a labial consonant, yielding Proto-Chorote and Proto-Wichí **o*.

- (186) PM *[j]ékɸaʔx ‘to bite’ > Mk [j]ikfeʔx • PCh *[j]ókwah • PW *[j]ókʷa χ
- (187) PM *-tséwte(ʔ) (*-jʰ) ‘tooth’ > Ni -tseβte (-j) • PW *-tsóte (*-jʰ)

3 Vowels

Finally, some cognate sets show deviant correspondences, which seem to instantiate vowel assimilation processes in individual languages. In (188) and (190), Nivaçle reflects PM $*éwV$ as $o\beta V$, which could represent a regular pattern of vowel assimilation. An apparently irregular pattern of progressive vowel assimilation is seen in Chorote in (189).

- (188) PM $*néwo(?)k$ ‘wild manioc’ > Ni *noβok* • PCh (?) $*n^əwák$ • PW $*néwok^w$
- (189) PM $*-pás(-e^?t)$ ‘lip’ > Mk *-pas* • Ni $-pás<e^?t>$ • PCh $*-pás<at>$ ~ $*-pás<ât>$ • PW $*-pás<et>$
- (190) PM $*téwo(?)k \overset{?}{\sim} *téwá(?)k$ ‘river’ > Ni *toβok* ~ *toβák* • PCh $*téwok$ ~ $*téwák$ • PW $*téwok^w$

3.3 PM $*ä$

PM $*ä$ is reconstructed based on the correspondence between Mk *e*, Ni *a*, PCh $*e$, and PW $*e$. It therefore merges with PM $*a$ in Maká and Nivaçle, but with PM $*e$ in Chorote and Wichí. Irregular reflexes are seen in Nivaçle in (197), possibly due to vowel assimilation, as well as in Chorote in (202). The reflex PW $*i$ in (226) is apparently the regular continuation of PM $*äj$. The reflex PCh $*i$ in (200) is due to harmonic rising triggered by the following $*u$ – as opposed to the reflex PCh $*e$ in (199), a process that might be regular in the environment $*W_Lu$, where *W* stands for a labial consonant and *L* for a coronal one (compare PCh $*-pél$ ‘shadow’, but Mj $-péilik$ ‘shadow’ < $*-píl-uk$).

- (191) PM $*[j]áp^?ä(?)t \sim *[j]á\phi^?ä(?)t$ ‘to burn’ > Ni *[j]ap^?at* • PCh $*[j]áp^?et$ • PW $*[j]áp^?et$
- (192) PM $*-ä\phi$, $*-\phi\check{a}-ts$ ‘wing’ > Mk 3 *t-ef*, *t-e-fe-ts* • Ni *-a\phi*, *-<a>\phi a-s* • PCh $*-hw<és>$ • PW $*-t-ex^w$
- (193) PM $*-ä^?j$, $*-äj-is$ ‘yica bag’ > Ni *-a^?j*, *-aj-is* • PCh $*-éj?$ ($*-is$) • PW $*-t-éj$ ($*-is$)
- (194) PM $*t-äk$ ‘you go away’ > PCh $*hl-ék$ • PW $*t-eq$
- (195) PM $*n-äk$ ‘to come’ > Mk *n-ek* • Ni *n-atf* • PW $*n-eq$
- (196) PM $*[j]án$ ‘to put’ > Mk *[j]en-APPL* • Ni *[j]an* • PCh $*[j]én$ • PW $*[j]én$
- (197) PM $*[ji]\phi\check{a}^?j\check{a} \overset{?}{\sim} *\phi\check{a}^?j\check{a}$ ‘to fly’ > Ni *[ji]\phi\check{a}^?j\check{a}* • PCh $*[?i]hwé^?j\check{a}?$ • PW $*x^we^?j\check{a} \overset{?}{\sim} *w- \overset{?}{\sim} *-i-$
- (198) PM $*[ji]\phi\check{a}l$ ‘to tell’ > Mk *n(i)-fel-im* • Ni *n(i)-\phi ak* / *n(i)-\phi ak\check{l}* • PCh $*[?i]hwél$ • PW $*[?i]x^wél^h$ / $*[?i]x^wél-$

- (199) PM *-*phälits* ‘daughter-in-law, sister-in-law’ > Mk *-felits* • Ni *-phakl̥is<?a>* ‘sister-in-law’ • PCh **-hwélis* ‘daughter-in-law’
- (200) PM *-*phäl?u?* (*-*ts*) ‘son-in-law, brother-in-law’ > Mk *-felu?* (-*ts*) • Ni *-phakl̥?u* (-*s*) ‘brother-in-law’ • PCh **-hwilu?* [?] *-hwélu?* (*-*s*) ‘son-in-law’
- (201) PM **pháʔx* ~ **pháʔx* ‘field’ > Ni *phaʔf* • PCh **hwéh*
- (202) PM *(-)*phétäʔts* ‘root’ > Mk *fitets* • Ni *-phetaʔs* • PCh **-hwétus* • PW *(-)*xwétes*
- (203) PM **phiʔjät* ‘cold weather, south wind’ > Ni *phiʔjat* • PCh **hwiʔjét* • PW **xwíʔjét*
- (204) PM **phinä(ʔ)χ* ‘crab’ > Ni *phinax* • PCh **hwíneh*
- (205) PM **[ji]phχän-* ~ **[ji]phχán-* ‘to kill a bird’ > Ni *[ji]phxan-APPL* • PCh **<?a>hwén-(n)ah* ‘bird’ • PW **<?a>xwén-k'e* ‘bird’
- (206) PM **-k'álphah* ‘spouse’ > Ni *-tʃakpha* • PCh **-k'élhwah* • PW **-k'j'éxwah*
- (207) PM **[ji]k'án* ‘to stretch out’ > Ni *[ji]tʃ'an* • PCh **[ʔi]k'én-APPL* • PW **[hi]k'j'én*
- (208) PM **[ji]k'ásaʔχ* ~ **[ji]k'áseʔχ* ‘to divide’ > Mk *[j]<a>k'esaʔχ* • PCh **[ʔi]k'ésah* • PW **[hi]k'j'ésaχ*
- (209) PM **látseni(?)* ‘chañar fruit’ > PCh **létseni?* • PW **léitseʔnih*
- (210) PM **látsen-uʔk* ‘chañar plant’ > Mk *<xu>letsin-uʔk* • PCh **léseni-k* • PW **létsen-uk^w*
- (211) PM *(-)*lká(ʔ)ʔ* ‘nasal mucus, cold’ > Mk *-leke(ʔ)ʔ* • PCh **két* • PW **k'él-taχ*, **k'él-ta-s*
- (212) PM **lájX₂₃VnāX₁₃á* ‘Azara’s night monkey’ > Ni *klajxenāxā* • PCh **léhjanāhā-ke?*
- (213) PM **mät* ‘hither, nearby’ > Mk *met* ‘nearby’ • PCh **mét* ‘hither’
- (214) PM **[ji]nxiʔwän* ‘to smell’ > Mk *[ji]nxiʔwen* • PCh **[ʔi]hniʔwen*
- (215) PM **pútäh* ‘tapeti rabbit’ > Ni *puta* • PCh **púteh*
- (216) PM *(-)*skäʔt* ‘mesh’ > Ni *-stfaʔt* • PW **sikʔet*
- (217) PM **[ni]-táphä(ʔ)l-APPL* ‘to know, to be acquainted’ > Ni *[ni]táphakl̥-APPL* • PCh **[ʔi]táhwel-APPL* • PW **-táx^wel-APPL* / **-táx^wnh-APPL*
- (218) PM **-táwäʔx*, **-táwxä-ts* ‘(abdominal) cavity’ > Mk *-taweʔx*, *-tawxe-ts* • Ni *-táβaʔf*, *-táβxa-s* • PCh **-tóweh* • PW **-tóweχ*
- (219) PM **-tä(ʔ)ts*, **-täts-él* ‘trunk, base’ > PCh **-tés* (*-*el*) • PW **-tes*, **-téts-el^h*

3 Vowels

- (220) PM *-tāts-u^ʔk, *-tāts-ku-j^h ‘trunk’ > Ni -tats-uk, -tas-ku-j • PCh *(-)tés-uk, *-tés-ku-j^h
- (221) PM *wāk ‘all’ > Mk we:k • Ni -batf • PCh *-wek • PW *-weq
- (222) PM *-wā^ʔx, *-w(ā)x-áj^h ‘burrow; anus’ > Ni -βa^ʔf, -βaf-aj^h • PCh *-wéh • PW *-wéχ, -wh-áj^h
- (223) PM *^ʔwāle^ʔk ‘to walk’ > Mk -<i>^ʔwelki-^ʔmet ‘to limp’ • Ni βaklé^ʔtf • PCh *^ʔ[ʔi]^ʔwélek • PW *^ʔweleq
- (224) PM *^ʔ[ji]^ʔwān ‘to see’ > Mk [ji]^ʔwen • Ni [ji]^ʔβan • PCh *^ʔ[ʔi]^ʔwén • PW *^ʔ[hi]^ʔwén
- (225) PM *-^ʔwāt ‘place’ > Mk -^ʔwet • Ni -^ʔbat • PCh *-^ʔwét • PW *-^ʔwet
- (226) PM *-xājk^ʔu(?) (*-l) ‘egg’ > Ni -fajk^ʔu (-k) • PCh 3 *hl-éjk^ʔu? (*-l) • PW *-t-ík^ʔu (*-l^h)
- (227) PM *-xā^ʔn(e?) ‘verbal plural (suffix)’ > Ni -fa^ʔne? / -xa^ʔne? • PCh *-he^ʔn(e?) • PW *-he^ʔn
- (228) PM *-xāte^ʔk, *-xāthe-j^h ‘head’ > Ni -fate^ʔtf, -fatxe-s • PCh *-hétek, *-héhte-j^h • PW *-t-éteq, *-t-éthe-j^h
- (229) PM *[t]^ʔā(°)k ‘to eat (intr.)’ > Mk [t]^ʔek • PW *[t]^ʔeq

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivačle, Chorote and Wichí), whose PM age is thus questionable.

- (230) PM *-φílä(°)k ‘dream’ > PCh *-hwíhlek • PW *-x^wíleq
- (231) PM *kowā^ʔx / *-kówā^ʔx ‘hole’ > PCh *kowéh / *-kóweh • PW *k^jowex / *-k^jóweχ
- (232) PM *-témä(°)k ~ *-tāmä(°)k, *-témh-aj^h ~ *-tāmh-aj^h ‘bile’ > PCh *-témek, *-téhm-aj^h • PW *-témeq, *-témh-aj^h
- (233) PM *^ʔomhatäk ~ *^ʔomhätäk ‘queen palm fruit’ > Mk omhetek • Ni ^ʔomxataf

The regular reflex in Chorote and Wichí seems to be *i rather than *e in syllables that precede the accented one, though the conditioning environment is not entirely clear at present.

- (234) PM *pätóχ ‘to be deep’ > Ni [ʔa]patox • PCh *-pítóh_{w<ij?>} • PW *pitóx^w

- (235) PM **tänúk* (*-its) ‘feline’ > Mk *tenuk* (-its) • Ni *tanuk* (-is) • PCh **tinúk* (*-is)
- (236) PM **tsänú’k* ‘duraznillo trees’ > Ni *tsanu’k* • PCh **sinúk* • PW **tsinúk*^w
- (237) PM **-ʔäsχa’n*, **-ʔäsχán-its* ‘meat’ > Mk *-ʔese’n*, *-ʔesen-its* • Ni *-(ʔa)sxa’n*, *-(ʔa)sxan-is* • PCh **-ʔisá’n*, **-ʔisán-is* • PW **-t’isa’n*, **-t’isán-is*

3.4 PM *a

PM **a* is typically preserved as *a* in Nivaçle, Proto-Chorote, and Proto-Wichí. In Maká it is typically raised to *e* (whereas PM **e* is raised to Mk *i*). Therefore, PM **a* usually merges with PM **ä* in Maká and Nivaçle. However, PM **a* yields Mk *a* before the uvular fricative PM **χ* – as in (295), (297), (304), (305) – and assimilates to Mk *o* if the following syllable contains an **o* – as in (265), (354), (365), (366). The irregular reflexes in Maká include *a* in (278) and (317); *i* in (299). The irregular reflexes in Nivaçle include *e* in (294); zero in (297)–(298). The irregular reflexes in Chorote include an irregular metathesis in (246); **e* in (257); **i* in (265); assimilation to **ä* in (279) and to **o* in (292), (293), (342); **ə* in (357). In Wichí, the irregular reflexes include **i* in (247); zero in (260), (324), and (368); **a* ~ **e* in (278); assimilation to **ä* in (286) and (290). The unaccented sequence PM **aju* may yield PW **e*, as in (270), (306).

- (238) PM **-aje’k* ~ **-ajé’k* ‘honey comb’ > Ni *-aje’tf* • PCh **-q-ájek*
- (239) PM **-(á)j^h* _{PL} > Mk *-(e)j* • Ni *-(a)j* • PCh **-(á)j^h* • PW **-(á)j^h*
- (240) PM **n-ap’u* ~ **n-aφ’u* (~ **-á-* ~ **-ú*) ‘to lick’ > Ni *n-ap’u* • PCh **[ʔi]<n>áp’uʔ* • PW **<n>ap’u* ~ **<n>áp’u* ~ **<n>ap’úh*
- (241) PM **n-át* ‘to fall on its own’ > Ni *n-at* • PW **<n>át*
- (242) PM **-á(-j^h)-xiʔ* (*-l) ‘mouth’ > Mk *-e<xiʔ>* (-l) • Ni *-a<fi>* (-k) • PCh (?) **-á<ajʔ>* • PW **-t-áj-hi* (*-l^h)
- (243) PM **-áʔ* (*-j^h) ‘fruit’ > Mk 3 *t-eʔ* (-j) • Ni *-aʔ* (-j) • PCh 3 **hl-áʔ* (*-j^h) • PW **-t-áʔ* (*-j^h)
- (244) PM **[j]ékφa’x* ‘to bite’ > Mk *[j]ikfe’x* • PCh **[j]ókwha* • PW **[j]ók^waχ*
- (245) PM **-φah*, **-φa-ts* ‘companion’ > Mk *-fe* (-ts) • Ni *-φa* (-s) • PCh **-hwah*, **-hwa-s* • PW **-x^wah*, **-x^wa-s*
- (246) PM **-φáji’x* ‘right’ > Mk *-feji’x* ‘left’ • Ni *-φaji’f* • PCh **-hwíjah*

3 Vowels

- (247) PM **φajXo?*, **φajXó-l* / **-φájXo?* (*-l) ‘coal’ > Ni (-)*φajxo?* (-k) • PCh **hwa(h)jo-* • PW **x^wijho(?)*, **x^wijhó-l^h* / **-x^wíjho* (*-l^h)
- (248) PM **-φá-[?]mat* ‘disease’ > Mk <eq>*fe-[?]met* • Ni *-φa-[?]mat* • PCh **-hwá-[?]mat*
- (249) PM **φa[?]t* ~ **φá[?]t* ‘fire’ > Mk *fe[?]t* • PCh **hwát*
- (250) PM **φátsu(?)χ*, **φátshu-ts* ‘centipede’ > Ni *φatsux*, *φatsxu-s* • PCh **(h)wásuh*, **(h)wásu-s* • PW **x^wátsux^w*
- (251) PM **[ji]φá[?]x* ‘to cut down’ > Mk *fex-inet-ki?* ‘ax’ • Ni *[ji]φa[?]f* • PCh **[ʔi]hwáh-APPL* • PW **[ʔi]x^wáχ*
- (252) PM **φa[?]áj* ‘algarrobo fruit (*Prosopis alba*)’ > Ni *φa[?]aj* • PCh **hwa[?]áj?* • PW **x^wa[?]áj^h*
- (253) PM **φkéna(?)χ* ‘north wind, north’ > Ni *φtfenax* • PCh **hw[?]kénah*
- (254) PM **-φqató* (*-l) ‘elbow’ > Ni *-(ʔV)φkato* (-k) • PCh **-qató?* (*-l) • PW **-qáto* (*-l^h)
- (255) PM **φtsána(?)χ* ‘suncho (*Baccharis sp.*)’ > Ni *φtsánax* • PCh **sánah* • PW **x^witsánaχ*
- (256) PM **-já[?]t* ‘breath’ > Ni *-ja[?]t* • PCh **-já[?]t* • PW **-já[?]t*
- (257) PM **jijá[?]ts* ‘dew’ > Mk *ije[?]ts* • Ni *jija[?]s* • PCh **ʔijés-tah* • PW **ʔijás*
- (258) PM **-ka*, **-ká-l* ‘tool, skillful person’ > Ni *-tfa?* (-k) • PCh **-ká?* (*-l) • PW **-k[?]a*, **-k[?]á-l^h*
- (259) PM **-kat* ‘collective of plants’ > Mk *-ket* • Ni *-tfat* / *-kat* • PCh **-kat* • PW **-k[?]at* (*-at after **k^w*, **q*)
- (260) PM **ké[?]χa-ju[?]k*, **ké[?]χa-jku-j^h* ‘red quebracho’ > Mk *ke[?]te-jku-* • Ni *tfe[?]χa-juk*, *tfe[?]χa-ku-j* • PCh **kéhla-juk* / **kéhla-jku-* • PW **k[?]é[?]t-juk^w*, **k[?]é[?]t-k[?]u-j^h*
- (261) PM **-kí[?]φah*, **-kí[?]φa-ts* ‘neighbor’ > Mk *-kife* (-ts) • Ni *-t[?]fi[?]φa* (-s) • PCh **-kí[?]hwah*, **-kí[?]hwa-s*
- (262) PM **-kilá?* (*-wot) ‘elder brother’ > Ni *-t[?]fek[?]la?* / *t[?]fik[?]la-* (-βot) • PCh **-kilá?* (*-wot) • PW **-k[?]íla*
- (263) PM **-kitá?* (*-wot) ‘elder sister’ > Ni *-t[?]fi[?]ta?* (-βot) • PCh **-kitá?* (*-wot) • PW **-k[?]íta*
- (264) PM **kula[?]j* ~ **kulá[?]j* ‘sun’ > Ni <xum>*ku[?]klá[?]j* • PCh **kuláj?*
- (265) PM **k[?]alxó* (*-ts) ‘armadillo sp.’ > Mk *k[?]olo[?]x* • Ni *k[?]akxo* (-s) • PCh **k[?]íhló?* (*-s) • PW **k[?]j[?]anhóh*

- (266) PM *-k'álφah 'spouse' > Ni -tʃakφa • PCh *-k'élhwah • PW *-kʲ'éxʷah
- (267) PM *k'ú(t)sta(ʔ)χ, *k'ú(t)sta-ts 'barn owl' > Ni (?) k'ustax, k'usta-s 'mockingbird' • PCh *k'ústah, *k'ústa-s • PW *kʲ'ústax
- (268) PM *k'utX₂₃á'n, *k'utX₂₃án-its 'thorn' > Ni k'utxa'n, k'utxan-is • PCh *k'utá'n, *k'után-is • PW *kʲ'uthá'n, *kʲ'uthán-is
- (269) PM *(-)k'útsaʔχ, *(-)k'útsha-ts 'old' > Mk k'utsaʔχ, k'utshe-ts • Ni k'utsaʔx, k'utsxa-s • PCh *-k'úсах, *-k'úsa-s • PW *-kʲ'útsax
- (270) PM *lóta-(ju)ʔk 'tree for making bows' > Ni klóta<tʃ> • PCh *lóta-juk • PW *lôte<q>
- (271) PM *(-)łtaʔ, *(-)łta-ts 'louse' > Mk -<ij>łeʔ(-ts) • Ni -łtaʔ(-s) • PCh *-hláʔ(*-s) • PW *łtaʔ
- (272) PM *łúmʔa 'day' > Ni łumʔa • PCh *hlúmaʔ
- (273) PM *łútsX₂₃a(ʔ) (*-jek) 'girl' > Ni łutsxa (-jetʃ) • PCh *hlúsaʔ(*-jek) • PW *łútsxa
- (274) PM *ma 'interrogative particle' > Mk me • PCh *ma
- (275) PM *-ʔmat 'negative quality, physical defect' > Mk -ʔmet • Ni -ʔmat • PCh *-ʔmat
- (276) PM *-nájh 'to bathe' > Ni [βa]naj • PCh *[ʔi]náj-APPL • PW *[ʔi]nájh
- (277) PM *-naʔx ~ *-náʔx / *-nxa- ~ *-nxá- 'nose' > Mk -neʔx / -nxe- • Ni -naʔʃ, -nfa-s • PCh *-hná<tVwoh> • PW *-nh<us>
- (278) PM *ɲk'a 'new' > Mk i'nk'a • Ni nitʃ'a • PCh *ɲk'áʔ • PW *nekʲ'a ~ *nékʲ'a ~ *nekʲ'e ~ *nékʲ'e
- (279) PM *-nX₂₃aq(ʔ)át 'to snore' > Ni [ta]nxakát • PCh *[ʔi]hnáq'át
- (280) PM *-nX₂₃atáʔ 'nasal mucus' > Ni -nxatáʔ • PCh *-hnát<ijah-PL>
- (281) PM *ʔnátu(h), *ʔnátu-ts 'day, world' > Mk neʔtu (-ts) • Ni naʔtu (-s) • PCh *ʔnáhl<ekis> ~ *ʔnáhl<ekes> 'midday'
- (282) PM *péta(ʔ)j, *péłaj-its 'rain' > Mk piʔej(-its) • PCh *péhlajʔ • PW *péłajʰ, *péłaj-is
- (283) PM *qa 'in order to' > Mk qe • Ni ka • PCh *qa
- (284) PM *qá- / *q- 'indirect possession' > Mk qe- / qa- / qo- / q- • Ni ka- / k- • PCh *qá- / *q- • PW *qá- / *q-
- (285) PM *[ji]qákuʔ 'to distrust' > Mk [je]qekuʔ • Ni [ji]kaku • PCh *[ji]qákuʔ • PW *[ji]qákʲu-APPL

3 Vowels

- (286) PM *-qalá? (*-j^h) ‘leg’ > Ni -kaklâ? (-j) • PCh *-qa’lá? ~ *-qâ’lá? (*-j^h) • PW *-qâlá (*-j^h)
- (287) PM *[t]qánhan ‘to fish with a hook’ > Mk [ta]<qa>qanhen • PCh *[t^ʔ]qáhnan • PW *[t]qánhan
- (288) PM *qati’ts, *qatits-él ‘star’ > Ni kati’s • PCh *qatés, *qates-él • PW *qates, *qatéts-el^h
- (289) PM *sát’a(°)(t)s ‘parakeet’ > Ni sat’as • PCh *sát’as • PW *sát’as
- (290) PM *sláqha(°)j, *sláqhaj-its ‘wild cat’ > Ni sklâkxaj ~ sklâkxaj (-is) • PCh *s^ʔláhqaj? ~ *s^ʔláhqáj? (*-is) • PW *siláqhâj
- (291) PM *s^ʔwúla^ʔχ, *s^ʔwúla-ts ‘anteater’ > Ni s^ʔβuklax, sβuklâ-s • PCh *s^ʔ?úlah, *s^ʔ?úla-s • PW *súlaχ
- (292) PM *-t(á)ko? (*-l) ‘face’ > Mk -tko<jek> • Ni -tako? (-k) • PCh *-tóko? (*-l) • PW *-tâkⁱo (*-l^h)
- (293) PM *-t(á)ko-se? (*-j^h) ‘eyebrow’ > Mk -tko-si? (*-j) • PCh *-tóko-se? (*-j^h) • PW *-tâkⁱo-se (*-j^h)
- (294) PM *táxχan ‘to thunder’ > Mk texen • Ni tafxen • PW *t’áχan
- (295) PM *-taχ, *-ta-ts ‘pseudo-’ > Mk -taχ, -te-ts • Ni -tax, -ta-s • PCh *-tah, *-ta-s • PW *-taχ, *-ta-s
- (296) PM *tsóφa(?) ‘fruit of a shrub (*Maytenus vitis-idaea*)’ > PCh *sóhwa? • PW *tsóx^wa(?)
- (297) PM *tsóφa-taχ ‘fruit of a shrub (*Lycium americanum*)’ > Mk tsofe-taχ • Ni tsoφ-tax
- (298) PM *tsóφa-ta-(ju)^ʔk ‘shrub (*Lycium americanum*)’ > Mk tsofe-te-k • Ni tsoφ-ta-juk • PW *tsóx^wa-t-uk^w
- (299) PM *ts’áts’ih, *ts’áts’i-l ‘rufous hornero’ > Mk ts’its’i (-l) • Ni ts’ats’i (-k) • PCh *sát’ih • PW *táts’i
- (300) PM *-uwa ‘termite house’ > Ni -uβa • PW *<t>uwa
- (301) PM *wák’a-ju^ʔk, *wák’a-jku-j^h ‘guayacán’ > Mk wek’e-ju^ʔk, wek’e-jkw-i • PCh *wák’a-juk, *wák’a-jku-j^h • PW *wákⁱ’a-juk^w, *wákⁱ’a-kⁱu-j^h
- (302) PM *^ʔwátshan ~ *^ʔwátsχan ‘to be healthy, alive’ > Ni βatsxan • PCh *^ʔwása^ʔn • PW *^ʔwátshan
- (303) PM *-xa, *-xá-l ‘price’ > Ni -fa? (-k) • PW *-ha, -há-l^h

- (304) PM $*(X_{13}on-)xa^{\prime}\chi$, $*(X_{13}on-)xáh-aj^h$ ‘night’ > Mk $\langle na \rangle xa^{\prime}\chi$ • Ni $\langle xon \rangle fa^{\prime}x$, $\langle xon \rangle fa^{\prime}x-aj$ • PCh $*\langle \text{?a} \rangle h \langle n \rangle áh \sim * \langle \text{?á} \rangle h \langle n \rangle áh$ • PW $*\langle hon \rangle a\chi$, $*\langle hon \rangle áh-aj^h$
- (305) PM $*xunxáta\chi$ ‘tusca fruit’ > Mk $xunxeta\chi$ • Ni $xunfatax$ • PCh $*\text{?ihnáta}h$ • PW $*^xnháta\chi$
- (306) PM $*xunxáta-(ju)^{\prime}k$ ‘tusca tree’ > Mk $xunxete-^{\prime}k$ • Ni $xunfata-juk$ • PCh $*\text{?ihnáta-k}$ • PW $*^xnháte-q$
- (307) PM $*xunxáta-kat$ ‘tusca grove’ > Mk $xunxete-ket$ • Ni $xunfata-tfat$ • PCh $*\text{?ihnáta-kat}$
- (308) PM $*(\text{?a})X_{13}útsa(^{\prime})\chi$, $*(\text{?a})X_{13}útsha-ts$ ‘crested caracara’ > Ni $xutsax$, $xutsxa-s$ • PCh $*(\text{?a})húsah$, $*(\text{?a})húsa-s$ • PW $*\text{?ahútsa}\chi$, $*\text{?ahútsha-s}$
- (309) PM $*..X_{23}a^{\prime}t$ (*-its) ‘earth’ > Ni $\langle kots \rangle xa^{\prime}t$, $\langle kots \rangle xat-is$ • PCh $*\langle \text{?a} \rangle h \langle n \rangle át \sim * \langle \text{?á} \rangle h \langle n \rangle át$ (*-es) • PW $*\langle hon \rangle hat$, $*\langle hon \rangle hát-es$
- (310) PM $*X_{23}wé^{\prime}lah$, $*X_{23}wé^{\prime}la-ts$ ‘moon’ > Ni $xibe^{\prime}la$ (-s) • PCh $*wé^{\prime}lah$, $*wé^{\prime}la-s$ • PW $*^xwé^{\prime}lah$
- (311) PM $*\text{?a}\phi u \sim * \text{?a}\phi ú$ ‘woman’ > Mk efu • PCh $*\text{?ahwú}?$
- (312) PM $*[t]^{\prime}á^{\prime}t$ ‘to ask’ > Ni $[t]^{\prime}a^{\prime}t$ • PCh $*[t]^{\prime}á^{\prime}t$ • PW $*[t]^{\prime}á^{\prime}t$
- (313) PM $*\text{?á}\acute{t}u(\text{?})$ ‘iguana’ > Ni $\text{?a}\acute{t}u$ (-s) • PCh $*\text{?á}hlu(\text{?})$ (*-s) • PW $*\text{?á}\acute{t}u$
- (314) PM $*\text{?ám}^{\prime}á\acute{h}$, $*\text{?ám}^{\prime}á-ts$ ‘rat’ > Ni $\text{?am}^{\prime}á$ (-s) • PCh $*\text{?ám}^{\prime}ah \sim * \text{?ám}^{\prime}á\acute{h}$, $*\text{?ám}^{\prime}a-s \sim * \text{?ám}^{\prime}á-s$ • PW $*\text{?á}ma$
- (315) PM $*\text{?áp}^{\prime}a(^{\prime})\chi \sim * \text{?á}\phi^{\prime}a(^{\prime})\chi$ ‘jararaca’ > Ni $\text{?ap}^{\prime}ax$ • PCh $*\text{?áp}^{\prime}ah$
- (316) PM $*\text{?aqá}je^{\prime}k$ ‘wild honey’ > Ni $\text{?aká}jetf$ • PW $*\text{?aqá}jeq$
- (317) PM $*-\text{?aq}hu^{\prime}ts \sim *-\text{?aq}hú^{\prime}ts$ ‘knee’ > Mk $-aqhu^{\prime}ts$ • Ni $-(\text{?a})kxu^{\prime}s$ • PCh $*-\text{?aq}ús$
- (318) PM $*\text{?atu}^{\prime}\chi \sim * \text{?at}ú^{\prime}\chi$ ‘snake sp.’ > Ni $\text{?atu}^{\prime}x$ • PCh $*\text{?at}úh$
- (319) PM $*\text{?á}wu(C)tse\chi$ ‘peccary’ > Ni $\text{?a}\betauktsex \sim \text{?a}\betaoktsex$ • PCh $*\text{?á}wusah$ • PW $*\text{?á}wutsa\chi$
- (320) PM $*\text{?á}xa?$ ‘stork’ > Mk $exe?$ ‘maguari stock’ • PCh $*\text{?á}ha?$ ‘jabiru’
- (321) PM $*-\text{?á}X_{23}te(\text{?})$ (*-j^h) ‘female breast’ > Ni $-\text{?axte}$ (-j) • PCh $*-\text{?á}hate(\text{?})$ (*-j^h) • PW $*-t-^{\prime}áte$ (*-j^h)
- (322) PM $*\text{?a}X_{13}áj(e)^{\prime}\chi$ ‘mistol fruit’ > Ni $\text{?axá}jex$ • PCh $*\text{?ah}ájah$ • PW $*\text{?ah}ájax$
- (323) PM $*\text{?a}X_{13}áj-u^{\prime}k$, $*\text{?a}X_{13}áj-ku-j^h$ ‘mistol tree’ > Ni $\text{?axá}j-uk$, $\text{?axá}j-ku-j$ • PCh $*\text{?ah}áj-uk$, $*\text{?ah}áj-ku-j^h$ • PW $*\text{?ah}áj-uk^w$

3 Vowels

- (324) PM *ʔánhajeχ ‘wild bean (*Capparis retusa*)’ > Mk *anhejaχ* • Ni ʔánxajex • PCh *ʔóhnajah • PW *ʔánhjaχ
- (325) PM *-ʔäsχaʔn, *-ʔäsχán-its ‘meat’ > Mk -ʔeseʔn, -ʔesen-its • Ni -(ʔa)sxaʔn, -(ʔa)sxan-is • PCh *-ʔisáʔn, *-ʔisán-is • PW *-t-ʔisaʔn, *-t-ʔisán-is
- (326) PM *ʔéjaʔ (*-l) ‘mosquito’ > Mk *ijeʔ* (-l) • Ni *jijaʔ* • PCh *ʔéjaʔ (*-l)
- (327) PM *ʔ[j]éjxâts-han ‘to teach’ > Mk [j]ixats<hen> • Ni [j]ejxats-xan / -ʔejxats-xan • PCh *ʔ[j]éjâhs<an>
- (328) PM *ʔóna(?)χ ‘my brother’ > Ni ʔonax • PCh *ʔónah
- (329) PM *ʔuwáte(?)χ \sim *Cʔuwáte(?)χ ‘puma’ > Ni <xum>pʔuβatex • PCh *kʔuwáhlah • PW *ʔowátaχ \sim *Cʔowátaχ
- (330) PM *ʔVláʔah, *ʔVláʔa-ts ‘lesser grison’ > Mk *ile* • Ni ʔakláʔa (-s) • PCh *ʔeláʔah, *ʔeláʔa-s \sim *ʔaláʔah, *ʔaláʔa-s • PW *ʔiláʔah

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (331) PM *-áʔl ‘light, brightness’ > PCh 3 *hl-áʔl • PW *-t-ál^h
- (332) PM *-φítan ‘to dream’ > PCh *ʔ[h]hwíhlan • PW *ʔ[t]xʷítan
- (333) PM *ʔijixâtaχ, *ʔijixâta-ts ‘ocelot’ > Mk *iʔixataχ*, *iʔixate-ts* • Ni *jixâtax*, *jixâta-s*
- (334) PM *káʔlah, *káʔla-ts ‘lizard’ > PCh *káʔlah, *káʔla-s • PW *kʔáʔlah, *kʔáʔla-s
- (335) PM *kójXa(?)t ‘to be heavy’ > PCh *kóhjat-APPL • PW *kʔójhat
- (336) PM *ktáʔnih ‘Chaco tortoise’ > PCh *kitáʔnih • PW *kʔtáʔnih
- (337) PM *ktéta(?) \sim *ktâta(?) ‘white algarrobo fruit (*Prosopis elata*)’ > PCh *kitétaʔ • PW *kʔtéta
- (338) PM *-kʔaló(?) (*-ts) ‘cheek’ > PCh *-kʔaló? (*-s) • PW *-kʔálo (*-s)
- (339) PM *kʔunhate-nhaʔ ‘pacu fish’ > Mk <i>kʔunheti-nheʔ (-j) • Ni *kʔunxate<nxa>* (-j)
- (340) PM *lama(h) \sim *läma(h) (*-m) ‘to be smooth’ > Mk *le:me*, *leme-m* • Ni *kłama<m>*
- (341) PM *níltsa(?)X₁₂, *níltsX₁₃a-ts ‘white-lipped peccary’ > PCh *<ʔih>nílsah, *<ʔih>nílsa-s • PW *nítsaχ, *nítsa-s

- (342) PM *-pák'o 'heel' > PCh *-pók'o? • PW *-pák'j'o
- (343) PM *kpéna(°)X₁₂ ~ *kpäna(°)X₁₂, *kpénX₁₃a-ts ~ *kpänX₁₃a-ts 'orphan' > PCh *kpénah, *kpéhna-s • PW *k'pénaχ, *k'pénha-s
- (344) PM *-qáka (*-l) 'medicine' > PCh *-qáka?(*-l) • PW *-qák'a (*-l^h)
- (345) PM *[t]qási(°)t / -qasi(°)t 'to stand' > PCh *[t°]qásit • PW *[t]qásit; IMP *qásit
- (346) PM *-qáwa(°)q 'belt, band' > PCh *-qáwak • PW *-qáwaq
- (347) PM *-qá?tu(?) 'yellow' > PCh *-qá?tu? • PW *qá?tu
- (348) PM *-q'á(°)X₁₂ 'tongue' > PCh *-q'áh • PW *-q'áχ 'mouth'
- (349) PM *stá-°q 'toothpick cactus (*Stetsonia coryne*)' > PCh *?°stá-k • PW *?istá-q
- (350) PM *tana(h) ~ *täna(h) 'standing, vertical' > Mk *te:ne, tene-m* • Ni *tana*
- (351) PM *tkéna(°)X₁₂ ~ *tkäna(°)X₁₂, *tkénX₁₃a-ts ~ *tkänX₁₃a-ts 'precipice; hill, mountain' > PCh *t°kénah, *t°kéhna-s • PW *tk'énaχ, *tk'énha-s
- (352) PM *[ji]-tXá(°)t 'to throw, to put' > PCh *[?i]tát-APPL • PW *[?i]thát
- (353) PM *tsóna(?) 'red brocket' > PCh *tsóna? • PW *tsó'nah
- (354) PM *(°)wawo(h) (*-l) 'maned wolf' > Mk *wowo (-l)* • Ni *βαβο (-k)*
- (355) PM *wkína(°)X₁₂, *wkínX₁₃a-ts 'metal' > PCh *w°kínah, *w°kínha-s • PW *k'ínaχ, *k'ínha-ts
- (356) PM *wóna(?) 'bala wasp honey; hat' > PCh *wóna? • PW *wó'nah
- (357) PM *wósak'V(°)t 'red-crested cardinal' > PCh *wós°k'at • PW *wósak'j'it
~ *wósak'j'ut
- (358) PM *°wá(°)x, *°wáx-aj^h 'stagnant water' > PCh *hl-<a>°wáh (*-aj^h) • PW *°wáχ, *°wáh-aj^h
- (359) PM *Xmáwoh 'fox' > PCh *máwo-tah • PW *°máwoh
- (360) PM *[ji]X₁₃án-ex 'to know' > PCh *<°[j]a>hán-eh • PW *[ji]hán-ex
- (361) PM *-?ałá(°)t 'fat' > PCh *-?ahlá? • PW *-t-'ałá(°)
- (362) PM *-?a(°)q 'rope, cord' > PCh *-?ák • PW *-t-'aq
- (363) PM *?áte(°)k ~ *?átä(°)k 'cebil, vinal' > PCh *?átek • PW *?áteq
- (364) PM *?at'e(°)(t)s ~ *?at'ä(°)(t)s 'aloja drink' > PCh *?at'és • PW *hat'és
- (365) PM *?a'ngo'k 'paralytic' > Mk *onqok* • Ni *?a'ngo'k*

3 Vowels

- (366) PM *[t]’at’o ‘to yawn’ > Mk [t]ot’o-kij • Ni [t]’at’o
 (367) PM *ʔatsXa(ʔ), *ʔatsXá-l ‘dorado’ > PCh *ʔasáʔ (*-l) • PW *ʔatsha(ʔ),
 *ʔatshá-l^h
 (368) PM *ʔ[j]óp’ale(ʔ) ‘to hiccup’ > Ni [j]op’akĭle / -ʔop’akĭle ‘to choke’ • PCh
 *ʔ[j]óp’aleʔ • PW *ʔ[j]óp’le

In a number of stems, all of which are provisionally reconstructed with the vowels **a* and **á* in two adjacent syllables, a correspondence is found between Mk *a...a*, Ni *á...á*, PCh **a...o*, and PW **a...o*. In each case there is a labial consonant either between the vowels or before the first of them. In (370)–(371), Chorote shows PCh **o...o* instead, as in (342) above. In (369), Nivačle has *a* instead of the expected **á*, which is likely due to a sound change whereby PM **á* changed to Ni *a* at least in some dialects (§7.2.1.3).

- (369) PM *-áwá(ʔ) ‘flower’ > Ni -aβá • PCh 3 *hl-áwoʔ • PW *-ł-áwo
 (370) PM *-φapá(ʔ) ‘shoulder’ > PCh *-hwopóʔ • PW *-x^wápó
 (371) PM *-φapá-keʔ ‘shoulder blade’ > Ni -φápá-ke • PCh *-hwopó-keʔ
 (372) PM *wátá(ʔ)χ ‘palo flojo fruit’ > Ni βátáx • PW *wátóx^w
 (373) PM *wáth(á-j)u^k ‘palo flojo tree’ > Ni βátxá-juk • PCh *wáht<uk>
 (374) PM *xnáwá^ʔp ‘spring’ > Mk xinawa^ʔp • Ni snáβáp ~ snáβáp • PCh *náwop
 • PW *^xnáwop

3.5 PM **á*

PM **á* is preserved as a low back unrounded vowel (distinct from the low non-back unrounded vowel /a/) in most dialects of Nivačle, in Proto-Chorote, and in Proto-Wichí. In Maká, it yields *a*, but does not merge with PM **a* in most environments because the default reflex of the latter vowel is Mk *e*. In the contemporary Chorote varieties, it survives as an underlying segment in Iyojwa’aja’ (which consistently surfaces as [a], whereas underlying /a/ surfaces either as [a] or as [e]); in other Chorote dialects, it merged with **a*. In Southeastern Wichí, it yields *ɔ* (in the Rivadavia subdialect) or even *o*, but no merger occurs because PW **o* yields *u* in the same varieties. In Nivačle, **á* merges with **a* in the Yita’ Lhavos dialect in all environments (§7.2.1.1); in other dialects the merger takes place before labial consonants (§7.2.1.3). It should be noted that in Wichí PM **á* exceptionally yields PW **a* preceding the coda *^w*m*, as in (409) and (461). Irregular reflexes include Mk *e* in (435), *o* in (437); Ni *a* in (401) and (458); PCh zero in

(442), *a in (444), *o in (453); PW *o in (413), *a in (420) and (446), zero in (442). In addition, irregular reflexes are apparently found in Maká in (428) and in Wichí in (452), but it is unclear whether the words in question actually belong to the respective cognate sets.

- (375) PM **n-ájin* ‘to go first’ > Mk [*wa*]<*th*>*ajin* • Ni *n-ájin* • PCh **[ʔi]*<*n*>*ájin*
- (376) PM **h-ák* ‘I go away’ > Mk *h-ak* • Ni *x-ák* • PCh **ʔák*
- (377) PM **n-ám* ‘to arrive’ > Mk *n-am* • Ni *n-am* • PCh **n-ám* • PW *<*n*>*ám*
- (378) PM **[t](ʔ)án* ‘to shout’ > Mk (?) [*t*]’*an* ‘to win’ • Ni [*t*]’*án* • PCh **[t]’án* • PW **[t]’án*
- (379) PM **-áni*’s ‘stinger’ > Mk 3 *ʔ-ani*’s • Ni 3 *ʔ-ánis* • PCh 3 **hl-ánis* • PW (?) 3 **ʔ-áʔni*
- (380) PM **-áp* ‘to cry’ > Mk *-ap* • Ni *-ap* • PCh **[j]áp*
- (381) PM **-ápil* ‘to return thither’ > Mk [*w*]’*apil* • Ni [*β*]’*apek* • PCh **[j]ápil* • PW **[j]ápil^h*
- (382) PM **[j]áp’ä(ʔ)ʔ* ~ **[j]áφ’ä(ʔ)ʔ* ‘to burn’ > Ni [*j*]’*ap’aʔ* • PCh **[j]áp’eʔ* • PW **[j]áp’eʔ*
- (383) PM **-áq*, **-qá-ts* ‘food’ > Mk *-aq*, *-qa-ts* • Ni *-ák*, *-ká-s* • PCh **-ák*, *-qá-s* • PW **ʔ-áq*, **-qá<s>*
- (384) PM **-ás*’s ‘son’ > Mk *-a’s* • Ni *-á’s* • PCh **-ás* • PW **ʔ-ás*
- (385) PM **-áse?* ‘daughter’ > Mk *-asi?* • Ni *-áse* • PCh **-áse?* • PW **ʔ-áse*
- (386) PM **[n]át* ~ **[n]át* ‘to bleed’ > Mk [*n*]’*at-xu?* • Ni [*n*]’*át* • PCh *<*n*>*át-* • PW *<*n*>*át-* ~ *<*n*>*át-*
- (387) PM **-áʔt*, **-át-its* ‘drink’ > Ni *-áʔt*, *-át-is* • PCh **-át* (*-es) • PW **ʔ-át*
- (388) PM **[j]áte(ʔ)χ* ‘to be fat’ > Ni [*j*]’*átex* • PCh **[j]átah* • PW **[j]átax*
- (389) PM **[ji]φáʔjá* ~ **φáʔjá* ‘to fly’ > Ni [*ji*]’*φáʔjá* • PCh **[ʔi]hwéʔjá?* • PW **x^weʔjá* ~ **w-* ~ **-i-*
- (390) PM **φtsána(ʔ)χ* ‘suncho (*Baccharis* sp.)’ > Ni *φtsanax* • PCh **sánah* • PW **x^witsánax*
- (391) PM **(-)háqke?* ‘well’ > Mk *haqqi?* ‘river’ • Ni *-xáke* ‘dry well’ • PCh **-hááke?* ‘artificial well’
- (392) PM **[ji]jáʔ* ‘to drink’ > Mk <*i*>*ja?* • Ni [*ji*]’*já?* • PCh **[ʔi]’já?* • PW **[ʔi]’já?*
- (393) PM **jiʔjá*’*X*₁₂ ‘jaguar’ > Ni *jiʔjáʔx* • PCh **ʔaʔjáh* • PW **haʔjáχ*

3 Vowels

- (394) PM **ji*^ʔ*lâ*ʔ, **ji*^ʔ*lâ*-*j*^h ‘tree’ > Ni *ji*^ʔ*klâ*ʔ (-*j*) • PCh **ʔa*^ʔ*lâ*ʔ (*-*j*^h) • PW **ha*^ʔ*lâ*, **ha*^ʔ*lâ*-*j*^h
- (395) PM **jinâ*^ʔ*t*, **jinâ*^ʔ*t*-*its* ‘water’ > Ni *jinâ*^ʔ*t*, *jinâ*^ʔ*t*-*is* • PCh **ʔi*^ʔ*nâ*^ʔ (*-*es*) • PW **ʔinâ*^ʔ (*-*es*)
- (396) PM **jit*^ʔ*â*ʔ, **jit*^ʔ*â*-*l* ‘vulture’ > Ni *jit*^ʔ*â*ʔ (-*k*) • PCh **ʔat*^ʔ*â*ʔ (*-*l*) • PW **hat*^ʔ*â*ʔ(?)
- (397) PM **jixâ*ʔ(?) ~ **jixâ*ʔ(?) ‘to be true’ > Mk *ixa* • Ni *jixâ*ʔ • PCh **ʔihâ*<*wet*>
- (398) PM **-kân* (*-*its*) ‘testicle’ > Ni *-kân*-*fij* • PCh **-kân*<*is*> • PW **-kân*<*is*>
- (399) PM **-kâ*^ʔ*s*, **-kâ*^ʔ*s*-*él* ‘tail’ > Ni *-kâ*^ʔ*s*, *-kâ*^ʔ*s*-*ek* • PCh **-kâ*^ʔ*s* • PW **-kâ*^ʔ*s*, **-kâ*^ʔ*s*-*el*^h
- (400) PM **[ji]**kâ*^ʔ*t*-*APPL* ‘to fall’ > Ni *[ji]**kâ*^ʔ*t*-*APPL* • PW **[ni]**kâ*^ʔ*t*-*APPL*
- (401) PM **khât* ‘cactus’ > Mk *khat*-*u*^ʔ*k* • Ni *kxat* • PCh **kâhât* • PW **kâhât*
- (402) PM **-k*^ʔ*âxe*ʔ (*-*l*) ‘arrow’ > Mk *-qaxi*ʔ (-*l*) • Ni *-k*^ʔ*âxe* • PCh **-k*^ʔ*âhe*ʔ (*-*l*) • PW **-k*^ʔ*âhe* (*-*l*^h)
- (403) PM **-k*^ʔ*in**xâ*ʔ? ~ **-k*^ʔ*in**xâ*ʔ? (*-*wot*) ‘younger sister’ > Mk *-k*^ʔ*in**xâ*ʔ? ~ *-k*^ʔ*in**xâ*ʔ? • Ni *-t*^ʔ*in**xâ* (-*ʔot*) • PCh **-k*^ʔ*ihnâ*ʔ (*-*wot*) • PW **-k*^ʔ*inhâ*
- (404) PM **[ji]**lâ*^ʔ*j* ‘to withstand’ > Ni *[ji]**klâ*^ʔ*j* • PCh **[ji]**lâ*^ʔ*j*-*eh* • PW **[ji]**lâ*^ʔ*j*
- (405) PM **[ji]**lân* ‘to kill’ > Mk *[ji]**lan* • Ni *[ji]**klân* • PCh **[ʔi]**lân* • PW **[ʔi]**lân*
- (406) PM **lâp*^ʔ*ih* ~ **lâ*^ʔ*ʔ**ih* ‘snail’ > Ni *klâp*^ʔ*i* • PCh **lâp*^ʔ*ih*
- (407) PM **-lâ*ʔ, **-lâ*-*j*^h ‘domestic animal’ > Ni *-klâ*ʔ (-*j*) • PCh **-lâ*<*hwah*> • PW **-lâ*ʔ, **-lâ*-*j*^h
- (408) PM **lâj*_{X₂₃}*Vnâ*_{X₁₃}*â* ‘Azara’s night monkey’ > Ni *klâjxenâxâ* • PCh **lêhjanâhâ*-*ke*ʔ
- (409) PM **[ji]**tâ*^ʔ*m* ‘to defecate’ > Mk <*i*>*tâ*^ʔ*m* • Ni *[ji]**tâ*^ʔ*m* • PCh **[ʔi]**hlâ*^ʔ*m* • PW **[t]*<^ʔ*a*>*tâ*^ʔ*m*
- (410) PM **[ji]**tân* ‘to light fire’ > Mk *[ni]**tân*-*APPL* • Ni *[ji]**tân* • PCh **[ʔi]**hlân*-*APPL* • PW **[ʔi]**tân*-*APPL*
- (411) PM **[ji]**mâ* ‘to sleep’ > Mk *[i]**ma*ʔ • Ni *[ji]**mâ*ʔ • PCh **[ʔi]**mâ*ʔ • PW **[ʔi]**mâ*
- (412) PM **mâh* ‘go!’ > Mk *ma* • Ni *mâ* • PCh **mâ*^h • PW **mâh*
- (413) PM **-mâ*^ʔ*k*, **-mhâ*-*j*^h ‘powder, flour’ > Ni *-mâ*^ʔ*k*, *-mxâ*-*j* • PCh **-mâk* • PW **-mók*^w, **-mhó*-*j*^h
- (414) PM **-nâ*ʔ(?) ~ **-nâ*ʔ(?) (*-*wot*) ‘father’ > Ni *nâ*-*ʔot* ‘parents’ • PCh **-nâ*ʔ, **-nâ*-*wot*

- (415) PM *(-)níjâk, *(-)níjhâ-j^h ‘rope, cord’ > Mk (-)nijak, (-)nijha-j • Ni -nijâk, -nijxâ-j • PCh *níjâk, *níjhâ-j^h • PW *níjâk^w, *níjhâ-j^h
- (416) PM *(-)ʔnájíʔx, *(-)ʔnájx-aj^h ‘path’ > Ni nâjîʔf, (-)nâjîʔf-aj / -ʔnâjîʔf • PCh *(-)ʔnájíh, *(-)ʔnâhj-aj^h • PW *(-)ʔnájíχ, *(-)ʔnâjh-aj^h
- (417) PM *ʔnjânxeʔ ‘tapeti rabbit, cavy’ > Mk nijaxtiʔ • Ni nânxate • PCh *ʔnâhâteʔ • PW *ʔnâte
- (418) PM *-nX₂₃aq(ʔ)át ‘to snore’ > Ni [ta]nxakât • PCh *[ʔi]hnâqʔát
- (419) PM *-nX₂₃atâʔ ‘nasal mucus’ > Ni -nxatâʔ • PCh *-hnât<ijah-PL>
- (420) PM *[t]pâʔj ‘to be bitter’ > Ni [tʔa]pâʔj • PCh *pâhj-iʔ • PW *[t]pâj
- (421) PM *-pâs(-eʔt) ‘lip’ > Mk -pas • Ni -pâs<eʔt> • PCh *-pâs<at> ~ *-pâs<ât> • PW *-pâs<et>
- (422) PM *-pât ~ *-pât ‘to shuck’ > Ni [t]pât-xan / [n(i)]pât-aʔ • PCh *[ʔi]pât
- (423) PM *pâttséχ ‘jabiru’ > Ni pátsex • PCh *pâtsáh • PW *pâtsâχ
- (424) PM *pâtse(ʔ)χ ‘fast, quick’ > Ni pátsex • PCh *(-)pâsah
- (425) PM *phâʔm ‘up’ > Mk -phaʔm • PCh *pʔhâʔm • PW *-phâ / *phâm-
- (426) PM *-qalâʔ (*-j^h) ‘leg’ > Ni -kaklâʔ (-j) • PCh *-qaʔlâʔ ~ *-qâʔlâʔ (*-j^h) • PW *-qâlâʔ (*-j^h)
- (427) PM *[t]qânhan ‘to fish with a hook’ > Mk [ta]<qa>qanhen • PCh *[tʔ]qâhnan • PW *[t]qânhan
- (428) PM *-sâqʔâl^h, *-sâqʔâl-its ‘soul, spirit’ > Mk (?) -siʔnqʔal (-its) • Ni -sâkʔâkl<it> • PCh *-sâqʔâl^h, *-sâqʔâl-is
- (429) PM *-sâʔt ‘vein’ > Mk -<ʔa>saʔt • Ni -sâʔt • PCh *-sât- • PW *-sât
- (430) PM *[ji]selân ‘to spank’ > Mk [j]<eq>silan ‘to spank’ • PCh *[ʔi]selân ‘to store’; *[ʔi]selân-eh ‘to prepare’
- (431) PM *slâqha(ʔ)j, *slâqhaj-its ‘wild cat’ > Ni sklâkxaj ~ sklâkxaj (-is) • PCh *sʔlâhqajʔ ~ *sʔlâhqâjʔ (*-is) • PW *silâqhâj
- (432) PM *[ni]-tâφä(ʔ)l-APPL ‘to know, to be acquainted’ > Ni [ni]tâφakl-APPL • PCh *[ʔi]tâhwel-APPL • PW *-tâx^wel-APPL / *-tâx^wnh-APPL
- (433) PM *tâʔt ‘to sprout’ > Mk taʔt • Ni tâʔt • PCh *tât • PW *tât
- (434) PM *-tâmtēʔ (*-ts) ‘daughter-in-law’ > Ni -tâmtēʔe> (-s) • PCh *-tâmtēʔ (*-s)
- (435) PM *-tâtseʔ (*-j^h) ‘eyelash’ > Mk -tetsiʔ(-j) • Ni -tâtse (-j) • PCh *-tâseʔ (*-j^h)

3 Vowels

- (436) PM **tijáʔ*χ ‘to shoot, to throw’ > Mk *tijaʔ*χ / *-tijaʔ*χ • Ni *tijáʔ*x • PCh **[ʔi]tijâh* • PW **tijâχ*
- (437) PM **tiłáʔ*x ‘to carry on one’s shoulders’ > Mk *tiłoʔ*x / *-tiłoʔ*x • Ni *tiłáʔ*x • PCh **[ʔi]tiłlâh* • PW **tiłâχ*
- (438) PM **tʼisâʔ*? ~ *tʼisâʔ*? (*-l) ‘cream-backed woodpecker (*Campephilus leucopogon*)’ > Mk *tʼisaʔ*(-l) • Ni *tʼisâʔ*?(-k) • PCh **tʼisâʔ*?(-l)
- (439) PM **tsâháq*? (*-its) ‘chajá bird’ > Mk *tsahaq* (-its) • PCh **sâháq*, **sâháq-es*? ~ **sâháq-is* • PW **tsâháq*
- (440) PM **[j]úłâ(ʔ)*χ ‘to be tired’ > Mk *-ułâ(ʔ)*χ ‘breath’ • Ni *[j]ułâx* • PCh **[j]úhlâh*
- (441) PM *-*wáʔ*k ‘bad mood’ > Mk *-wak* • Ni *-βáʔ*k • PCh *-*wák* • PW *-*wák*^w
- (442) PM **ʔwánXâłâχ*, **ʔwánXâłâ-ts* ‘rhea’ > Mk *waatâχ* • Ni *βânxâłâx*, *βânxâłâ-s* • PCh **ʔwánhlâh*, **ʔwánhlâ-s* • PW **wáʔnłâχ*, **wáʔnłâ-s*
- (443) PM **ʔwósâ(ʔ)q* ~ **ʔwósâ(ʔ)k* ‘butterfly’ > Ni *βosâk* • PCh **ʔwósâk*
- (444) PM **xéjâʔ*? (*-l) ‘bat’ > Mk *xajaʔ*(-l) • Ni *fejâ*(-k) • PCh **<ʔa>héjaʔ*? (*-l)
- (445) PM **xpâʔ*k ~ **xpâʔ*k ‘straw’ > Mk *xupa(ʔ)k*? *xupek* • Ni *xpâʔ*k • PCh **ʔipák*
- (446) PM **ʔámʔâh*, **ʔámʔâ-ts* ‘rat’ > Ni *ʔamʔâ*(-s) • PCh **ʔámʔah* ~ **ʔámʔâh*, **ʔámʔa-s* ~ **ʔámʔâ-s* • PW **ʔâma*
- (447) PM **ʔaqâjeʔ*k ‘wild honey’ > Ni *ʔakâjetf* • PW **ʔaqâjeq*
- (448) PM **ʔaX₁₃âje(ʔ)*χ ‘mistol fruit’ > Ni *ʔaxâjex* • PCh **ʔahâjah* • PW **ʔahâjaχ*
- (449) PM **ʔaX₁₃âj-uʔ*k, **ʔaX₁₃âj-ku-j^h* ‘mistol tree’ > Ni *ʔaxâj-uk*, *ʔaxâj-ku-j* • PCh **ʔahâj-uk*, **ʔahâj-ku-j^h* • PW **ʔahâj-uk^w*
- (450) PM **ʔâʔjtex*, **ʔâʔjtex*-ts ‘to hurt’ > Mk *aʔtaχ*, *aʔti-ts* • Ni *ʔâʔjtex* ~ *ʔâʔftex* • PCh **ʔâjʔtah-APPL*, *-*ʔâjʔte-s-APPL* • PW **ʔâjtaχ*, **ʔâjtex*-s
- (451) PM **ʔâl(V)tse(ʔ)*χ, **ʔâl(V)tse-ts* ‘cháguar (*Deinacanthon urbanianum*)’ > Ni *ʔâktsex*, *ʔâktse-s* • PCh **ʔâlʔsah*, **ʔâlʔse-s* • PW **ʔâletsax*
- (452) PM **ʔâʔlá-taχ*, **ʔâʔlá-ta-s* ‘Argentine boa’ > Ni *ʔâʔklâ-tax*, *ʔâʔklâ-ta-s* • PCh **ʔâʔlá<tah>* ~ **ʔâʔlá<tah>*, **ʔâʔlá<ta>-s* ~ **ʔâʔlá<ta>-s* • PW (?) **lá<taχ>*
- (453) PM **ʔânhajex* ‘wild bean (*Capparis retusa*)’ > Mk *anhejaχ* • Ni *ʔânjaxex* • PCh **ʔóhnajah* • PW **ʔânhjaχ*
- (454) PM **ʔânitih* ‘wasp sp.’ > Ni *ʔâniti* • PCh **ʔânitih*

- (455) PM *[t]'ás 'to step' > Ni [t]'ás • PCh *[t]'ás • PW *[t]'ás-APPL
- (456) PM *ʔátits ~ *-í- ~ *-e- ~ *-é- 'wild pepper' > Mk *atits* • PCh *ʔátés
- (457) PM *-ʔâx (*-its) 'skin, bark' > Mk *-ʔax* (-its) • Ni *-ʔax* (-is) • PCh *-ʔáh, *-ʔáh-és • PW *-t-'áχ, *-t-'áh-és
- (458) PM *ʔ[j]éjxâts-han 'to teach' > Mk [j]ixats<hen> • Ni [j]ejxats-xan / -ʔejxats-xan • PCh *ʔ[j]éjáhâs<an>
- (459) PM *ʔítâ(°)χ, *ʔítâ-ts 'fire' > Ni ʔitâx, ʔitâ-s • PCh *ʔitâh, *ʔitâ-s • PW *ʔitâχ, *ʔitâ-s
- (460) PM *ʔúlʔáh, *ʔúlʔâ-ts 'dove' > Ni ʔuklʔâ (-s) • PCh *ʔúlʔáh, *ʔúlʔâ-s

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (461) PM *-áʔm 'pronominal formative' > PCh *-áʔm • PW *-áʔm
- (462) PM *-áme(°)t / -ámte- 'word' > PCh *-ámt- • PW *-ámet, -ámte-s
- (463) PM *[j]âphi(°)t 'to spin' > Mk [j]afti(°)t • Ni [j]âphi
- (464) PM *-áte(°) (*-j^h) 'jar' > PCh *-áte(°) (*-j^h) • PW *-<xj>áte (*-j^h)
- (465) PM *[j]âtsi(°)j 'to spill' > Mk [j]atsij-xuʔ • Ni [j]âtsij
- (466) PM *φilâ(°)X₁₂ 'pocote (*Solanum* sp.)' > PCh *hwilâh • PW *x^wilâχ
- (467) PM *φinâk, *φinhâ-j^h 'tobacco' > Mk *finak*, *finha-j* • Ni *φinâk*, *φinxâ-j*
- (468) PM *ʔiʔixâtaχ, *ʔiʔixâta-ts 'ocelot' > Mk *iʔixataχ*, *iʔixate-ts* • Ni *jixâtax*, *jixâta-s*
- (469) PM *[ʔi]ká(°)t 'to be red' > PCh *[ʔi]kát • PW *[ʔi]k^ját
- (470) PM *[ʔi]káʔ 'to be torn' > PCh *[ʔi]káʔ • PW *[ʔi]k^jáʔ
- (471) PM *-kéjâ(°) (f.), *-kéjâts (m.), *-ké(j)tsâ-ts (pl.) 'grandchild' > PCh *-kéjâʔ, *-kéjâs, *-kétsâs • PW *-k^jéjâ, *-k^jéjâs, *-k^jétsâs
- (472) PM *[ʔi]lá(°)t 'to feel' > PCh *[ʔi]lát-*ej^h* • PW *[ʔi]lát
- (473) PM *lâttsiki-juʔk 'willow' > Mk *lattsiki-juʔk* • Ni *klâttsiki-juk*
- (474) PM *ñtâ(°)k 'two' > PCh *ñták • PW *nitâk^w
- (475) PM *páʔjih 'frog (*Leptodactylus* sp.)' > PCh *páʔjih • PW *páʔjih
- (476) PM *-qásile(°) (*-j^h) 'guts' > PCh *-qásile-*j^h* • PW *-qásle-*j^h*

3 Vowels

- (477) PM **sâlâ*(°)l, **sâlâl*-its ‘middle-sized cicada’ > Mk *sala*(°)l, *salal*-its • Ni *sâkl*<*âkl*>*âk* (-is)
- (478) PM **sijâ*(°)χ, **sijâχ*-is ‘fish sp.’ > Mk *sija*(°)χ, *sijaχ*-its • Ni *sijâx* (-is)
- (479) PM **siló?tâφV* ~ **siwó?tâφe* ‘Caatinga puffbird’ > PCh **siló?tâhwV?* • PW **siwótâx*^we
- (480) PM **stâφe*(?) ‘Chaco chachalaca’ > PCh **ʔstâhwe?* • PW **ʔistâx*^we
- (481) PM **tâtsna*(°)X₁₂ ~ **tâtsne*(°)χ ‘toad’ > PCh **tâsVnah* • PW **tâtnaχ*
- (482) PM **t’â’j* ‘to sound, to have voice’ > Mk *t’aj* • Ni *t’â’j*
- (483) PM **[ji]tsâ*(°)j ‘to spill’ > PCh **[ʔi]sâj?* • PW **[ʔi]tsâj*
- (484) PM *(°)*wâna* χ, *(°)*wânha*-ts ‘piranha’ > Mk *wana* χ, *wanhe*-ts • Ni *βânaχ*, *βânaχ*-s
- (485) PM *(°)*wâ*’s ‘sky’ > Mk *wa*’s • Ni *βâ*’s
- (486) PM *(°)*wâse?* ‘cloud’ > Mk *wasi?* • Ni *βâse?*
- (487) PM **-ʔatâ*(?) ‘fat’ > PCh **-ʔahlâ?* • PW **-t’atâ*(?)
- (488) PM **ʔ[n]âφé*(°)ł ~ **ʔ[n]âφá*(°)ł ‘to be ashamed’ > PCh **ʔ[n]âhwét* • PW **ʔ[n]âx*^wél ~ **ʔ[n]âx*^wél^h
- (489) PM **ʔâφte*’l ‘orphan’ > Mk *afti*’l • Ni *ʔâφte*’k
- (490) PM **-ʔâ*(°)l, 3 **ʔ[j]i*(°)l ‘to die’ > PCh **ʔ[j]á*(°)l • PW **ʔ[j]il*^h
- (491) PM **ʔâthajex* ~ **ʔâthäjex* ‘molle fruit’ > Mk *athejajex* • Ni *ʔâtxajex*

In a number of stems, PM **â* yields **o* in Chorote and Wichí, a development usually found in the vicinity of a labial consonant or PM **χ*. In the same words, PM **a* in the preceding syllable typically harmonizes to Mk *a*, Ni *â*.

- (492) PM **-âwâ*(?) ‘flower’ > Ni *-aβâ* • PCh 3 **hl-âwo?* • PW **-t-âwo*
- (493) PM **n-âχ* ‘to end up’ > Mk *n-aχ* • Ni *n-âx* • PCh **<n>óhw-APPL* • PW **<n>ox*^w
- (494) PM **-φapâ*(?) ‘shoulder’ > PCh **-hwopó?* • PW **-x^wâpo*
- (495) PM **-φapâ-ke?* ‘shoulder blade’ > Ni *-φâpâ-ke* • PCh **-hwopó-ke?*
- (496) PM **-tâwâ*’x, **-tâwxä*-ts ‘(abdominal) cavity’ > Mk *-tawe*’x, *-tawxe*-ts • Ni *-tâβa*’f, *-tâβxa*-s • PCh **-tôweh* • PW **-tôweχ*
- (497) PM **wâtâ*(°)χ ‘palo flojo fruit’ > Ni *βâtâx* • PW **wátow*^w
- (498) PM **xnáwâ*’p ‘spring’ > Mk *xinawa*’p • Ni *ʃnaβâp* ~ *ʃnâβâp* • PCh **nâwop* • PW **xnáwop*

3.6 PM *o

PM *o is typically preserved as o in all daughter languages: Maká, Nivaçle, Proto-Chorote, and Proto-Wichí. Only a few cognate sets show deviant reflexes: Mk *u* in (533), Ni *a* in (536)–(537), PCh *^ʷ in (512).

- (499) PM **φajXoʔ*, **φajXó-l* / **-φájXoʔ* (*-l) ‘coal’ > Ni (-)*φajxoʔ* (-k) • PCh **hwa(h)jo-* • PW **x^wijho(ʔ)*, **x^wijhó-l^h* / **-x^wijho* (*-l^h)
- (500) PM **-φqató* (*-l) ‘elbow’ > Ni -(ʔV)*φkato* (-k) • PCh **-qatóʔ* (*-l) • PW **-qáto* (*-l^h)
- (501) PM **-ko(ʔ)j* (*-áj^h) ‘hand, arm’ > Mk *-koj* (-ej) • PCh **-kójʔ*, **-koj-áj^h*
- (502) PM **k(ʔ)óʝ-APPL* ‘to be round’ > Mk *kʔo:j-xiʔ* • PCh **kój<oj>-APPL*
- (503) PM **kʔalxó* (*-ts) ‘armadillo sp.’ > Mk *kʔoloʔx* • Ni *kʔakxo* (-s) • PCh **kʔihlóʔ* (*-s) • PW **kʔʔanhóh*
- (504) PM **-kʔo*, **-kʔó-l* ‘bottom’ > Ni *-kʔoʔ* (-k) • PCh **-kʔóʔ* • PW **-kʔʔo*, **-kʔʔó-l^h*
- (505) PM **(-)loʔ(ʔ)* ~ **(-)lóʔ(ʔ)* ‘ashes’ > Mk *loʔ* • PCh **-lóʔ*
- (506) PM **loʔp* ~ **lóʔp*, **lop-íts* ~ **lóp-its* ‘winter’ > Mk *loʔp*, *lop-its* • Ni *klóʔp*, *klóp-is* • PCh **lóp* • PW **lop* ~ **lóp*
- (507) PM **lóta-(ju)ʔk* ‘tree for making bows’ > Ni *klóta<tf>* • PCh **lóta-juk* • PW **lôte<q>*
- (508) PM **[ʔa]lóch*, **[ʔa]ló-ts* ‘many’ > Mk <o>*lo<ts>* • Ni <ʔa>*klóx* • PCh **[ʔa]ʔlóh* • PW **<ʔa>ló<s>*
- (509) PM **[ji]lXón* ‘to roast’ > Ni *[ji]kxon* • PCh **[ʔi]hlón* • PW **[t]nhón*
- (510) PM **mijó* (*-l) ‘savannah hawk’ > Mk *mijo* (-l) • Ni *mijo* (-k) • PCh **mijóʔ* (*-l) • PW **mijóh*
- (511) PM *^ʷ*mók* (*-its) ‘zorzal bird (*Turdus* sp.)’ > Mk *mok* (-its) • Ni *mok* (-is) • PCh *^ʷ*mók* (*-is)
- (512) PM **néwo(ʔ)k* ‘wild manioc’ > Ni *noʔok* • PCh (?) **n^ʷwák* • PW **néwok^w*
- (513) PM **-ó* (*-l) ‘penis’ > Ni *-oʔ* (-k) • PCh **-óʔ* (*-l) • PW **-ʔ-ó* (*-l^h)
- (514) PM **-óʔ* (*-j^h) ‘seed’ > Mk 3 *ʔ-oʔ* (-j) • PCh **-óʔ* • PW **-ʔ-óʔ* (*-j^h)
- (515) PM **pätóχ* ‘to be deep’ > Ni *[ʔa]patox* • PCh **-pítow<ijʔ>* • PW **pítóχ^w*
- (516) PM **[t]póʔ-ex* ‘to be full’ > Mk *[to]poʔ-ox* • Ni *[to]poʔ-x* • PCh **[tʔ]pó-eh* • PW **[t]pó-jeχ*

3 Vowels

- (517) PM *[ji]pónit-ex ‘to fill’ > Mk [j]<o>pon-het-ix • Ni [ji]pont-ef • PCh *[ʔi]pónit-eh • PW *[ʔi]tá-ponit-eχ
- (518) PM *[ji]p’o(ʔ) ~ *[ji]φ’o(ʔ) ~ *[ji]p’ó(ʔ) ~ *[ji]φ’ó(ʔ) ‘to cover’ > Ni [ji]p’o • PCh *[ʔi]p’ó-APPL • PW *[hi]p’ó-APPL
- (519) PM *-p’o’k ~ *-φ’o’k ‘fence’ > Ni -p’o’k • PCh *-p’ók • PW *-p’ok^w
- (520) PM *-p’o’t ‘lid’ > Mk -p’ot<oʔ> • Ni -p’o’t • PCh *-p’ót • PW *-p’ot
- (521) PM *silóʔtâφV[?] ~ *siwóʔtâφe ‘Caatinga puffbird’ > PCh *silóʔtâh^wVʔ • PW *siwótâx^we
- (522) PM *-t(á)koʔ (*-l) ‘face’ > Mk -tko<jek> • Ni -takoʔ(-k) • PCh *-tókoʔ(*-l) • PW *-ták^o(*-l^h)
- (523) PM *-t(á)ko-seʔ(*-j^h) ‘eyebrow’ > Mk -tko-siʔ(*-j) • PCh *-tóko-seʔ(*-j^h) • PW *-ták^o-se(*-j^h)
- (524) PM *tós(*-its) ‘snake’ > Ni tos(-is) • PCh *tós(*-is)
- (525) PM *tóχ-APPL, *tó-ts-APPL ‘far’ > Mk -toχ-ij, to-ts-ij • Ni tox-APPL • PCh *tóh(w)-APPL, *tó-ts-APPL • PW *tóx^w-ej^h
- (526) PM *-ʔtxo’k ~ *-ʔtxó’k, *-ʔtxóko-wot ‘uncle’ > Mk -txo’k • Ni -ʔtxo’k, -ʔtxoko-βot • PCh *-<i>tók, *-<i>tóko-wot • PW *-<wi>thok^w
- (527) PM *-t’ox ~ *-t’óx ‘aunt’ > Ni -t’ox • PCh *-<i>t’óh • PW *-<wi>t’oχ
- (528) PM *tsóφα(ʔ) ‘fruit of a shrub (*Maytenus vitis-idaea*)’ > PCh *sóhwaʔ • PW *tsóx^wa(ʔ)
- (529) PM *tsóφα-taχ ‘fruit of a shrub (*Lycium americanum*)’ > Mk tsofe-taχ • Ni tsoφ-tax
- (530) PM *tsóφα-ta-(ju)’k ‘shrub (*Lycium americanum*)’ > Mk tsofe-te-k • Ni tsoφ-ta-juk • PW *tsóx^wa-t-uk^w
- (531) PM *[ji]wó ‘to do’ > Mk woʔ-oj • Ni βoʔ<oj> • PCh *[ʔi]wó / *-wó • PW *[ʔi]wó-
- (532) PM *-wó(*-ts) ‘worm’ > Ni -βoʔ(-s) • PCh *-wóʔ(*-s) • PW *-wó(*-s)
- (533) PM *[ji]wo’m ‘to throw’ > Mk [i]wu’m • PCh *[ʔi]wóm-APPL • PW *[ʔi]wo’m
- (534) PM *wóp’ih ~ *wóφ’ih[?] ~ *móp’ih ~ *móφ’ih ‘white egret’ > PCh *wóp’ih • PW *móp’i
- (535) PM *wósak[’]V(?)t ‘red-crested cardinal’ > PCh *wós[’]k’at • PW *wósak[’]it[?] ~ *wósak[’]ut

- (536) PM *wósitsex ‘black algarrobo fruit (*Prosopis nigra*)’ > Mk *ositsax* • Ni *βaitsex* • PW *wósotsax
- (537) PM *wósits-u⁷k ‘black algarrobo tree (*Prosopis nigra*)’ > Mk *osits-u⁷k* • Ni *βaitse-juk* • PCh *wósis-uk • PW *wósots-uk^w
- (538) PM *-wóʔ (*-ts) ‘expert’ > Mk -woʔ (-ts) • Ni -βoʔ (-s) • PCh *-wóʔ (*-s) • PW *-wóʔ (*-s)
- (539) PM *-²wo, *-²wó-l ‘neck’ > Mk -wo<nxeʔ> • Ni -²βoʔ (-k) • PCh *-²wóʔ (*-l) • PW *-²wo, *-²wó-l^h
- (540) PM *(-)²woʔj ‘blood’ > Ni βoʔj / -²βoj-ej • PCh *(-)²wóʔj-is • PW *²woj-ís / *-²wóʔj-is
- (541) PM *²wósá(ʔ)q ~ *²wósá(ʔ)k ‘butterfly’ > Ni βosák • PCh *²wósák
- (542) PM *[ji]X₁₃o(ʔ) ~ *[ji]X₁₃ó(ʔ) ‘to go’ > Ni [ji]xoʔ • PCh *[ʔi]hóʔ • PW *[ji]ho(ʔ) ~ *[ji]hó(ʔ)
- (543) PM *X₁₃ó⁷k ‘palo santo (*Bulnesia sarmientoi*)’ > Ni xo⁷k • PCh *hók • PW *hók^w
- (544) PM *X₁₃on-xa²χ, *X₁₃on-xáh-aj^h ‘night’ > Ni <xon>fa²x, <xon>fa²x-aj • PW *<hon>aχ, *<hon>áh-aj^h
- (545) PM *X₁₃ó²t ‘sandy place’ > Ni xo²t • PCh *hót • PW *hót
- (546) PM *ʔóʔoʔ (*-ts) ‘pigeon’ > Mk ofoʔ (-l) • Ni ʔóʔo (-s) • PCh *ʔóhwoʔ (*-s)
- (547) PM *²[j]om ‘to be extinguished’ > Mk [j]om • PCh *²[j]óm-APPL • PW *²[j]om
- (548) PM *ʔóna(ʔ)χ ‘my brother’ > Ni ʔonax • PCh *ʔónah
- (549) PM *²[j]óp²ale(ʔ) ‘to hiccup’ > Ni [j]op²akle / -ʔop²akle ‘to choke’ • PCh *²[j]óp²aleʔ • PW *²[j]óp²le
- (550) PM *-ʔo²t ~ *-ʔó²t ‘chest’ > Ni -ʔo²t • PCh *-ʔót

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaê, Chorote and Wichí), whose PM age is thus questionable.

- (551) PM *-ʔom ‘to throw, to push’ > PCh *[ʔi]hwóm-ah • PW *[t]x^wom
- (552) PM *(-)ʔ²ok ~ *(-)ʔ²ók (*-its) ‘arrow’ > Mk (-)ʔ²ok (-its) • Ni (-)p²ok (-is)
- (553) PM *ji²no, *ji²nó-l ‘man’ > PCh *ʔi²nóʔ (*-l) • PW *hi²no, *hi²nó-l^h
- (554) PM *kójXa(ʔ)t ‘to be heavy’ > PCh *kóhjat-APPL • PW *k²ójhat

3 Vowels

- (555) PM *kóʔl ‘locust’ > PCh *kóʔl • PW *kʲólʰ
- (556) PM *kowäʔx / *-kówäʔx ‘hole’ > PCh *kowéh / *-kóweh • PW *kʲowex / *-kʲóweχ
- (557) PM *-kʲaló(?) (*-ts) ‘cheek’ > PCh *-kʲaló? (*-s) • PW *-kʲʲálo (*-s)
- (558) PM *-kʲóX₂₃te(?) (*-jʰ) ‘ear’ > PCh *-kʲóote? (*-jʰ) • PW *-kʲʲóte (*-jʰ)
- (559) PM *-pákʲo ‘heel’ > PCh *-pókʲoʔ • PW *-pákʲʲo
- (560) PM *-qótso(?) ‘node’ > PCh *-qóso-keʔ • PW *-qótso
- (561) PM *(-)takʲo(h) ~ *(-)täkʲo(h) ‘kind of utensil’ > Mk tokʲo • Ni -takʲo-tax
- (562) PM *tsóna(?) ‘red brocket’ > PCh *tsónaʔ • PW *tsóʲnah
- (563) PM *(?)wawo(h) (*-l) ‘maned wolf’ > Mk wowo (-l) • Ni βαβο (-k)
- (564) PM *wóna(?) ‘bala wasp honey; hat’ > PCh *wónaʔ • PW *wóʲnah
- (565) PM *-ʷóle(?) ‘leaf, hair, feather’ > PCh *-ʷóleʔ • PW *-ʷóle
- (566) PM *Xmáwoh ‘fox’ > PCh *máwo-tah • PW **máwoh
- (567) PM *xoxaw-uʲk [?] ~ *xoxi-juʲk, *-ku-j ‘palo cruz (*Tabebuia nodosa*)’ > Mk xoxew-uʲk, xoxew-kw-i • Ni xoxi-juk, xoxi-ku-j
- (568) PM *ʔaʲnqoʲk ‘paralytic’ > Mk onqok • Ni ʔaʲnkoʲk
- (569) PM *[t]ʲatʲo ‘to yawn’ > Mk [t]ʲotʲo-kij • Ni [t]ʲatʲo
- (570) PM **[j]ʲo ‘to be ripe’ > PCh **[j]ʲó-ʔeʔ • PW **[j]ʲo
- (571) PM *ʔomhatäk ~ *ʔomhätäk ‘queen palm fruit’ > Mk omhetek • Ni ʔomxataf
- (572) PM *-ʔóʲthale(?) ~ *-ʔóʲthâle(?) ‘heart’ > PCh *-ʔóhtale? ~ *-ʔóhtâle? • PW *-t-ʲótle

3.7 PM *u

PM *u is typically preserved as *u* in all daughter languages: Maká, Nivaçle, Proto-Chorote, and Proto-Wichí. In the Chorote varieties, it may front to *i* after palatalized consonants, but this sound change must have occurred after the disintegration of Proto-Chorote into dialects (see §8.2.3.5). Note that the reflexes in (600) in Nivaçle and Wichí are entirely irregular due to contamination with those of PM *-pás(-eʲt) ‘lip’; the regular reflexes are found in Maká and Chorote. The Wichí reflexes in (602) and (632) are also irregular. In (619)–(621), PM *xu- is reflected as PCh *ʔi- and PW **x-, which could be a regular development in word-initial

unstressed syllables. In (598), Chorote has lost the original vowel before what looks like a fossilized vowel-initial suffix.

- (573) PM **n-ap'u* ~ **n-aφ'u* (~ **-á-* ~ **-ú*) 'to lick' > Ni *n-ap'u* • PCh **[ʔi]<n>áp'u?* • PW **<n>ap'u* ~ **<n>áp'u* ~ **<n>ap'uh*
- (574) PM **φátsu(?)χ*, **φátshu-ts* 'centipede' > Ni *φatsux*, *φatsxu-s* • PCh **(h)wásuh*, **(h)wásu-s* • PW **x^wátsux^w*
- (575) PM **-φálʔu?* (**-ts*) 'son-in-law, brother-in-law' > Mk *-felu?* (*-ts*) • Ni *-φaklʔu* (*-s*) 'brother-in-law' • PCh **-hwílu?* ~ **-hwélu?* (**-s*) 'son-in-law'
- (576) PM **φts-u'k* 'palm (*Copernicia alba*)' > Mk *fits-uk* • Ni *φts-u'k* • PCh **hwis<úk>* • PW **x^wits<uk^w>*
- (577) PM **-φu't* ~ **-φú't*, **-φtú-ts* 'flatulence' > Mk *-ftu-ts* • Ni *-φu't*, *-φtu-ts* • PCh **-hwút*
- (578) PM **-φχúx*, **-φχú-ts* 'finger' > Mk *-fux* • Ni *-φxux*, *-φxu-s* 'toe' • PCh **-hwu-ké?* • PW **-x^wúx^w*, **-x^wú-s*
- (579) PM **jiju's* ~ **jijú's* 'wax' > Ni *jiju's* • PCh **ʔijús*
- (580) PM **kula'j* ~ **kulá'j* 'sun' > Ni *<xum>kukl'a'j* • PCh **kuláj?*
- (581) PM **[ji]kú'ʔ* 'to answer' > Mk *[j]<e>ku'ʔ* • Ni *[ji]ku'ʔ* • PCh **[ʔi]kúhl-APPL* • PW **[ni]k'úʔ*
- (582) PM **[t]kú'm-APPL* 'to grab; to work' > Mk *[te]ku'm-APPL* • Ni *[t'a]ku'm-APPL* • PCh **[ʔi]kúm-APPL* • PW **[t]k'ú(?)m-APPL*
- (583) PM **-kun* ~ **-kún* 'to eat (intr.)' > Ni *<tsak>kun* • PCh **[t^o]<ʔá>kun*
- (584) PM **kús* ~ **kúts* 'heat' > Mk (?) *kus* (*Pyrocephalus rubinus*) • Ni *kus* • PCh **kús-APPL*
- (585) PM **-kút-ex* 'to meet' > Mk *[w(e)]kut-ix-u'ʔ* • Ni *[βa]kut-ef* • PCh **[ʔi]kút-eh* • PW **-k'út-ex*
- (586) PM **kú'X₁₂* 'sweat' > Ni *-ʔβ-ku'x* • PW **k'úx^w*
- (587) PM **-k'u*, **-k'ú-l* 'horn, club' > Mk *-k'u?(-l)* • Ni *-k'u?(-k)* • PCh **-k'ú?(*-l)* • PW **-k^ju*, **-k^jú-l^h*
- (588) PM **k'uj* ~ **k'új* 'cold' > Mk *k'wi / k'uj-* • Ni *k'uj* • PCh **k'új?*
- (589) PM **k'ú(t)sta(?)χ*, **k'ú(t)sta-ts* 'barn owl' > Ni (?) *k'ustax*, *k'usta-s* 'mockingbird' • PCh **k'ústah*, **k'ústa-s* • PW **k^jústax*
- (590) PM **k'utX₂₃á'n*, **k'utX₂₃án-its* 'thorn' > Ni *k'utxa'n*, *k'utxan-is* • PCh **k'utá'n*, **k'után-is* • PW **k^juthá'n*, **k^juthán-is*

3 Vowels

- (591) PM *(-)lútse^ʔx, *(-)lútsxe-ts ‘bow’ > Ni *k̄lútsef* / -*k̄lútseʔf*, (-)k̄lútsfe-s • PCh *(-)lúseh (*-es) • PW *(-)lútseχ, *(-)lútse-s
- (592) PM **-tú^ʔk*, **-tú-j^h* ‘yica bag, load’ > Mk *-tú^ʔk*, *-tú-j* • Ni *-tú^ʔk* • PCh **-hlúk*, **-hlúj-...* • PW **-túk^w*, **-tú-j<is>*
- (593) PM **túm?a* ‘day’ > Ni *túm?a* • PCh **hlúma?*
- (594) PM **tútsX₂₃a(?)* (*-jek) ‘girl’ > Ni *tútsxa* (-jetf) • PCh **hlúsa?* (*-jek) • PW **tútsha*
- (595) PM **-muk*, **-mhu-j^h* ‘feces’ > Mk *-<i>muk*, *-<i>mhu-j* • Ni (-)<sa>*muk*, (-)<sa>*mxu-j* • PCh **-<?já>muk* • PW **-<?já>muk^w*, **-<?já>mhu-j^h*
- (596) PM *(-)nú(?) (*-ts) ‘bone’ > Mk *-nu* (-ts) • Ni *-nu?* (-s) • PW **nú(?)*
- (597) PM **nú?uh*, **nú?u-ts* ‘dog’ > Ni *nú?u* (-s) • PCh **nú?uh*, **nú?u-s*
- (598) PM **nátu(h)*, **nátu-ts* ‘day, world’ > Mk *netu* (-ts) • Ni *natu* (-s) • PCh **náhl<ekis>* ~ **náhl<ekes>* ‘midday’
- (599) PM **pútáh* ‘tapeti rabbit’ > Ni *puta* • PCh **púteh*
- (600) PM **-pxúse?* (*-j^h) ‘beard’ > Mk *-<a>pxusi?* (-j) • Ni *-páse* (-j) • PCh **-púse?* (*-j^h) • PW **-páse* (*-j^h)
- (601) PM **[ji]qáku?* ‘to distrust’ > Mk *[je]qeku?* • Ni *[ji]kaku* • PCh **[ji]qáku?* • PW **[ji]qákⁱu-APPL*
- (602) PM **stwú^ʔn*, **stwún-its* ‘king vulture’ > Ni *staβu^ʔn*, *staβun-is* • PCh **?stúu^ʔn*, **?stúun-is* • PW **?istíwin*
- (603) PM **-su(?)*, **-sú-l* ‘vagina’ > Mk *-su?* (-l) • Ni *-su?* (-k) • PCh **-<i>su?* (*-l) • PW **-su(?)*
- (604) PM **s^ʔwúla^ʔχ*, **s^ʔwúla-ts* ‘anteater’ > Ni *s^ʔβuklax*, *sβukla-s* • PCh **s^ʔúláh*, **s^ʔúla-s* • PW **súlaχ*
- (605) PM **[ji]s^ʔwun* ~ **[ji]s^ʔwún* ‘to like, to love’ > Mk *[ji]su?un* • Ni *[ji]s^ʔβun* • PCh **[ʔi]s^ʔún*
- (606) PM **tánúk* (*-its) ‘feline’ > Mk *tenuk* (-its) • Ni *tanuk* (-is) • PCh **tinúk* (*-is)
- (607) PM **tlú^ʔk* ‘blind’ > Ni *taklu^ʔk* • PCh **t^ʔlúk* • PW **tilúk^w*
- (608) PM **túku(?)*(t)s ‘ant’ > Ni *tukus* • PCh **túkus*
- (609) PM **túsu(?)*(t)s ‘lesser yellowlegs’ > Ni *tusus* • PCh **túsus* • PW **túsus*
- (610) PM **tux* ‘to eat (tr.)’ > Mk *tux* / *-tux* • Ni *tux* • PCh **[ʔi]túM* • PW **tux^w*
- (611) PM **tún* ‘hard’ > Mk *t’un* • Ni *t’un* • PCh **tún* • PW **tún*

- (612) PM **tsänúʔk* ‘duraznillo trees’ > Ni *tsanuʔk* • PCh **sinúk* • PW **tsinúk*^w
- (613) PM *-(*j*)*uk*, *-(*j*)*ku-j^h* ‘tree (suffix)’ > Mk -(*j*)*uk*, -(*j*)*kw-i* • Ni -(*j*)*uk*, -*ku-j* • PCh *-(*j*)*uk*, *-(*j*)*ku-j^h* • PW *-(*j*)*uk*^w, **k^tu-j^h*
- (614) PM *[*j*]*úłá(ʔ)χ* ‘to be tired’ > Mk -*ułá(ʔ)χ* ‘breath’ • Ni [*j*]*ułáx* • PCh *[*j*]*úhláh*
- (615) PM *-*úʔp*, *-*úp-its* ‘nest’ > Mk 3 *ł-up (-its)* • Ni -*uʔp*, -*up-is* • PCh *-*úp (*-is)* • PW *-*ł-úp (*-is)*
- (616) PM *-*uwa* ‘termite house’ > Ni -*uβa* • PW **<ł>uwa*
- (617) PM **n-u(ʔ) ~ *n-ú(ʔ)* ‘to throw oneself, to pass’ > Ni *n-uʔ* • PCh **[ʔi]<n>úʔ* • PW **[ʔi]<n>ú-APPL*
- (618) PM *-*xájkʔu(ʔ) (*-l)* ‘egg’ > Ni -*fajkʔu (-k)* • PCh 3 **hl-éjkʔuʔ (*-l)* • PW *-*ł-łk^jʔu (*-l^h)*
- (619) PM **xunxátaχ* ‘tusca fruit’ > Mk *xunxetaχ* • Ni *xunfataχ* • PCh **?ihnátah* • PW ***xnhátax*
- (620) PM **xunxáta-(ju)ʔk* ‘tusca tree’ > Mk *xunxete-ʔk* • Ni *xunfata-juk* • PCh **?ihnáta-k* • PW ***xnháte-q*
- (621) PM **xunxáta-kat* ‘tusca grove’ > Mk *xunxete-ket* • Ni *xunfata-tfat* • PCh **?ihnáta-kat*
- (622) PM **xu(ʔ)p* ‘grass’ > Mk *xup<ʔel>* • PCh **húp* • PW **hup*
- (623) PM *-*X₁₃uʔk*, *-*X₁₃ú-j^h* ‘firewood’ > Ni -*xuʔk*, -*xu-j* • PCh *(*?ítáh*)-*huk* • PW *-*huk^w*, *-*hú-j<is>*
- (624) PM *[*ji*]*X₁₃út* ‘to push’ > Ni [*ji*]*xut* • PCh **[ʔi]hút* • PW **[ji]hút*
- (625) PM **?aφu ~ *?aφú* ‘woman’ > Mk *efu* • PCh **?ahwúʔ*
- (626) PM **?áłtu(ʔ)* ‘iguana’ > Ni *?ałtu (-s)* • PCh **?áhlúʔ (*-s)* • PW **?áłtu*
- (627) PM *-*?aqhuʔts ~ *-?aqhúʔts* ‘knee’ > Mk -*aqhuʔts* • Ni -(*?a*)*kxuʔs* • PCh *-*?aqús*
- (628) PM **?atuʔχ ~ *?atúʔχ* ‘snake sp.’ > Ni *?atuʔx* • PCh **?atúh*
- (629) PM **?úlʔáh, *?úlʔá-ts* ‘dove’ > Ni *?uklʔá (-s)* • PCh **?úlʔáh, *?úlʔá-s*
- (630) PM *-*?úł* ‘to urinate’ > Mk *uł / -?uł* • Ni [*j*]*uł / -?uł* • PCh **[t]ʔúł* • PW **[t]ʔúł*
- (631) PM *-*?útu(ʔ)* ‘urine’ > Ni -*?ułu* • PCh *-*?úhluʔ* • PW *-*t-ʔútu*

3 Vowels

- (632) PM *ʔuwáʔe(?)χ ~ *C'uwáʔe(?)χ 'puma' > Ni <xum>p'ubáʔex • PCh *k'uwáhlah • PW *ʔowáʔax ~ *C'owáʔax

The very same correspondence is observed in etymologies with a limited distribution (Maká and Nivaçle, Chorote and Wichí), whose PM age is thus questionable.

- (633) PM *[ʔi]ʔá(t)s'un 'to spit' > PCh *[ʔi]hwáts'un-APPL • PW *[ʔi]x'áts'un
(634) PM *(-)jipkuʔ(*-l) 'hunger' > Mk (-)jipkuʔ(-l) • Ni jipkuʔ / -jipku (-k)
(635) PM *[wa]kuma'χ 'to run' > Mk [we]kuma'χ • Ni [βa]kuma'x
(636) PM *k(ʔ)utsá(?)X₁₂ ~ *k(ʔ)utsé(?)χ 'cháguar (*Bromelia hieronymi*)' > PCh *k'usáh • PW *k'utsáχ
(637) PM *k'unhate-nhaʔ 'pacu fish' > Mk <i>k'unheti-nheʔ (-j) • Ni k'unxate<nxa> (-j)
(638) PM *púle(?) (*-ts) 'sky, cloud' > PCh *púleʔ (*-s) • PW *púle (*-s ~ *-ʔajis)
(639) PM *púm 'drum' > PCh *púm • PW *púm
(640) PM *-qáʔtu(?) 'yellow' > PCh *-qáʔtuʔ • PW *qáʔtu
(641) PM *spú(?)p 'dove' > PCh *s²púp • PW *spúp
(642) PM *(-)tútse(?)χ 'smoke' > PCh *(-)túsah • PW *(-)tútsax
(643) PM *tuχ-APPL 'to burn (intr.)' > Mk tuχ-xem, tuχ-eʔ • Ni tux-a'm, tux-ej
(644) PM *[ji](t)s'u(?) 'to suck' > PCh *[ʔi]ts'ú-APPL • PW *[hi]ts'u(?)
(645) PM *[ji]wún 'to burn (tr.)' > PCh *[ʔi]wún • PW *[ʔi]wún
(646) PM *(?)wut 'a bushy leguminous plant' > Mk wut • Ni βut
(647) PM *-²wu(?)j 'clothes, blanket' > PCh *-²wújʔ • PW *-²wuj
(648) PM *-X₁₃úsek ~ *-X₁₃úsäk 'temperance' > PCh *-húsek • PW *-húseq
(649) PM *(ʔa)X₁₃útsa(?)χ, *(ʔa)X₁₃útsha-ts 'crested caracara' > Ni xutsax, xutsxa-s • PCh *(ʔa)húsah, *(ʔa)húsa-s • PW *ʔahútsax, *ʔahútsha-s
(650) PM *ʔutsi(h) (*-l) 'eel' > Mk utsi (-l) • Ni ʔutsi (-k)

3.8 Insufficient evidence for reconstruction of a specific vowel

Some etymologies have a limited distribution (Maká and Nivaçle, Chorote and Wichí), and their PM age is thus questionable. For cognate sets that involve the correspondence between Mk *e* and Ni *a* with no cognates in Chorote and Wichí, it may not be possible to distinguish between PM **a* and **ä*.

- (651) PM *[n]aʔt̪ ~ *[n]äʔt̪ ‘to burn’ > Mk [n]eʔt̪-xuʔ • Ni [ji]<n>-aʔt̪
- (652) PM *-ata(°)x ~ *-ä- ‘food’ > Mk -ete(°)x • Ni -ataf
- (653) PM *fánhaʔ ~ *fänhaʔ (*-j^h) ‘locust’ > Mk <e>fenheʔ (-j) • Ni fanxa (-j)
- (654) PM *faxi(°)j ~ *fäxi(°)j ‘green ameiva’ > Mk fexij • Ni fafij
- (655) PM *[t]kʼan ~ *[t]kʼän ‘to obey’ > Mk [te]kʼen ‘to respect’ • Ni [t(a)]tʼan
- (656) PM *lama(h) ~ *läma(h) (*-m) ‘to be smooth’ > Mk le:me, leme-m • Ni klama<m>
- (657) PM *maʔlaʔl ~ *-ä- ‘agile’ > Mk meʔleʔl ‘to move’ • Ni maklaʔk
- (658) PM *(-)nawan ~ *-ä- ‘hook’ > Mk newen • Ni -naβan
- (659) PM *qapa(°)p ~ *-ä- ‘dwarf’ > Mk qep<ep>e(°)p • Ni kapap ‘dwarf dog’
- (660) PM *-saʔx ~ *-säʔx ‘leaf’ > Mk 3 te-seʔx • Ni -saʔf
- (661) PM *(-)takʼo(h) ~ *(-)täkʼo(h) ‘kind of utensil’ > Mk tokʼo • Ni -takʼo-tax
- (662) PM *tana(h) ~ *täna(h) ‘standing, vertical’ > Mk te:ne, tene-m • Ni tana
- (663) PM *tsaqaq ~ *-ä- ‘plant sp.’ > Mk tseqaq • Ni tsakak
- (664) PM *waf ~ *wäf ‘to be tired, to die’ > Mk [ji]wef • Ni βaf
- (665) PM *wapen ~ *wäpen ‘to be ashamed’ > Mk wepin • Ni βapen
- (666) PM *ʔäthajex ~ *ʔähäjex ‘molle fruit’ > Mk athejaj • Ni ʔätxajex
- (667) PM *ʔomhatäk ~ *ʔomhätäk ‘queen palm fruit’ > Mk omhetek • Ni ʔomxatatf

For cognate sets that involve the correspondence between PCh **e* and PW **e* with no cognates in Maká and Nivaçle, it may not be possible to distinguish between PM **e* and **ä*.

- (668) PM *-éle(?) ~ *-äle(?) (*-j^h) ‘inhabitant, inner’ > PCh *-éle(?) (*-j^h) ‘inhabitant, intestine’ • PW *-t-éle (*-j^h)
- (669) PM *ktéta(?) ~ *ktáta(?) ‘white algarrobo fruit (*Prosopis elata*)’ > PCh *kitéta? • PW *kʲéta

3 Vowels

- (670) PM *[j]ókφe(°)(t)s ~ *[j]ókφä(°)(t)s ~ *[j]ékφe(°)(t)s ~ *[j]ékφä(°)(t)s ‘to frighten’ > PCh *[j]ókwes • PW *[j]ók^wes
- (671) PM *[ʔi]pén ~ *[ʔi]pán ‘to cook’ > PCh *[ʔi]pén • PW *[ʔi]pén
- (672) PM *kpéna(°)X₁₂ ~ *kpána(°)X₁₂, *kpénX₁₃a-ts ~ *kpánX₁₃a-ts ‘orphan’ > PCh *kpénah, *kpéhna-s • PW *kⁱpénaχ, *kⁱpénha-s
- (673) PM *-témä(°)k ~ *-támä(°)k, *-témh-aj^h ~ *-támh-aj^h ‘bile’ > PCh *-témek, *-témh-aj^h • PW *-témeq, *-témh-aj^h
- (674) PM *tkéna(°)X₁₂ ~ *tkána(°)X₁₂, *tkénX₁₃a-ts ~ *tkänX₁₃a-ts ‘precipice; hill, mountain’ > PCh *t^okénah, *t^okéhna-s • PW *tkⁱénaχ, *tkⁱénha-s
- (675) PM *-X₁₃úsek ~ *-X₁₃úsäk ‘temperance’ > PCh *-húsek • PW *-húseq
- (676) PM *ʔáte(°)k ~ *ʔátä(°)k ‘cebil, vinal’ > PCh *ʔátek • PW *ʔáteq
- (677) PM *ʔat’e(°)(t)s ~ *ʔat’ä(°)(t)s ‘aloja drink’ > PCh *ʔat’és • PW *hat’és
- (678) PM *ʔ[n]áφé(°)ʔ ~ *ʔ[n]áφä(°)ʔ ‘to be ashamed’ > PCh *ʔ[n]áhwét • PW *ʔ[n]áx^wét ~ *ʔ[n]áx^wél^h

For *χ-final stems that lack a known reflex in Nivačle and whose vocalic stem is not recoverable, it is impossible to distinguish between PM *a and *e (and even *ä, if no Wichí cognate is available), because all these vowels merge before a uvular fricative as Maká a, Chorote a, and Wichí a (PM *ä remains distinct in Wichí, however).

- (679) PM *[ji]k’ása’χ ~ *[ji]k’áse’χ ‘to divide’ > Mk [j]<a>k’esa’χ • PCh *[ʔi]k’ésah • PW *[hi]kⁱ’ésaχ
- (680) PM *k(°)utsá(°)X₁₂ ~ *k(°)utsé(°)χ ‘cháguar (*Bromelia hieronymi*)’ > PCh *k’usáh • PW *kⁱutsáχ
- (681) PM *[j/?]is{a/ä/e}’χ ~ *[j/?]is{á/ä/é}’χ ‘sand’ > Mk isa’χ • PCh *ʔisáh ~ *ʔisáh

Finally, a divergent correspondence occurs in two examples, where Ni ä corresponds to PCh *u and PW *u following a PM *(°)w (only one of these cognate sets has a reflex in Maká, where e is found). It is unclear as of yet which vowel should be reconstructed to Proto-Mataguayan in these two cases.

- (682) PM *wV’χ, *wV’-ts ‘large, fat’ > Ni -βä’x • PCh *wúh, *wú-s • PW *wúx^w, *wú-s
- (683) PM *-°wV’ʔ ~ *-°wV’ʔ ‘to climb’ > Mk we’ʔ • Ni βä’ʔ • PCh *[ʔi]’wúʔ • PW *[t]’wuʔ ~ *[t]’wúʔ

4 Word-level prosody

This chapter deals with the reconstruction of the Proto-Mataguyan word-level prosody. We reconstruct word-level accent for Proto-Mataguyan based on evidence from the 'Weenhayek variety of Wichí and from Chorote; additional indirect evidence comes from Nivaçle.

Our proposal is based on the observation that long vowels in 'Weenhayek regularly correspond to stressed syllables in Chorote. In our reconstruction of Proto-Mataguyan, at most one syllable in a phonological word is contrastively PROMINENT. A phonological word may also lack a prominent syllable; compare this to the so-called ENCLINOMENA in languages such as Old Russian, where words with a stress (“orthotonic words”) are opposed to words without a stress, or enclinomena (Jakobson 1963).

In 'Weenhayek, the prominent syllables of Proto-Mataguyan are typically reflected as syllables with a long nucleus, whereas all other syllables have a short nucleus in 'Weenhayek. In Chorote, the prominent syllables of Proto-Mataguyan are typically reflected as stressed. The acoustic cues of stress in Chorote await further study; they may include an increase in intensity (Figure 4.1) and pitch (Figure 4.2) and, at least in some cases, increased vowel duration. Proto-Mataguyan words that lacked a prominent syllable receive a default stress in Chorote.

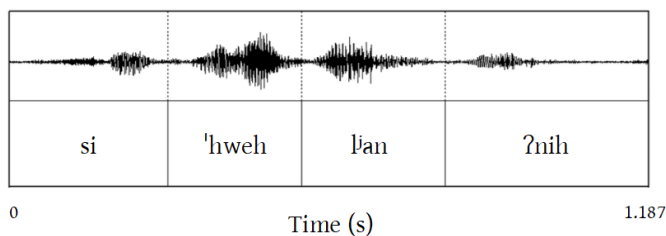


Figure 4.1: Intensity in Ijw *sihwéhlʔanʔnih* ‘I’m dreaming’

It is not yet clear what the acoustic correlates are of what we call prominence in Proto-Mataguyan; in this book, we speak of “accented” (˘) and “unaccented” (˜)

4 Word-level prosody

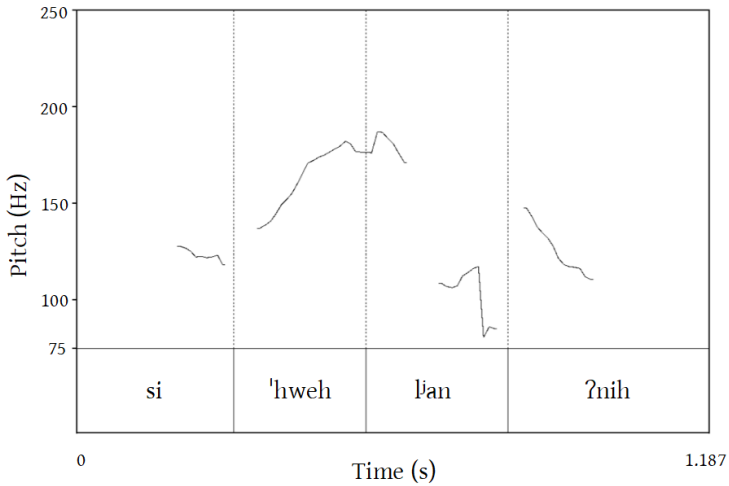


Figure 4.2: Pitch in Ijw *sihwéhlʼanʔnih* ‘I’m dreaming’

syllables for ease of reference but this is purely a terminological convention, and we do not insist on any particular interpretation of PM prominence. We indicate PM prominence, ^ʼWeenhayek vowel length, and Chorote stress by means of an acute accent in this book. ^ʼWeenhayek (as well as other Wichí varieties) also has stress, whose position is mostly predictable; its placement is indicated by means of the dedicated IPA symbol ^ʼ unless the stress is final (see §9.1.3.2).

The prosodic pattern of Proto-Mataguayan is not preserved in Maká and in most Wichí varieties, which have innovated final stress; Nivaçle is somewhat more conservative in this regard but less so than Chorote and ^ʼWeenhayek. Innovative final stress is found even in ^ʼWeenhayek, though it does not interact with the more archaic vowel length system in any way. Nevertheless, there are indirect vestiges of the Proto-Mataguayan prosodic system in Nivaçle and in Lower Bermejeño Wichí: in these varieties, PM *ʔ is diachronically deleted when it occurs as a coda in posttonic syllables, but preserved in enclitomena and in accented syllables.

In our proposal, Proto-Mataguayan morphemes are underlyingly specified as accented or unaccented, and within a word only the leftmost underlying accent makes it to the surface. In addition, unaccented words of more than two syllables are not permitted; polysyllabic words composed of unaccented morphemes take a default peninitial accent.

§4.1 presents the distinction between unaccented (“enclitomena”) and accented (“orthotonic”) monosyllables of Proto-Mataguayan, with clearly distinct

reflexes found in 'Weenhayek. §4.2 shows all three possible configurations for disyllabic words: enclimena (unaccented–unaccented), iambs (unaccented–accented), and trochees (accented–unaccented). §4.3 shows the possible patterns in words with more than two syllables. Our findings are summarized in §4.4.

4.1 Monosyllabic words

This section discusses the distinction between unaccented (“enclimena”) and accented (“orthotonic”) monosyllables of Proto-Mataguyan. They have clearly distinct reflexes in 'Weenhayek (and, consequently, in Proto-Wichí). No distinctions are found in other languages.

Note that this section covers monosyllabic *words* and not *stems*. This is important because monosyllabic consonant-initial stems of certain classes (such as relational nouns) always show up with a moraic prefix, and are thus considered in §4.2. However, monosyllabic vowel-initial stems of these same classes usually take non-moraic prefixes, and are thus discussed in this section.

4.1.1 [˘]

Monosyllabic enclimena are reflected as monosyllables with a short vowel in 'Weenhayek and, consequently, in Proto-Wichí. In (8) and (11), the word-initial consonant cluster is broken up by an epenthetic PW ^{*}*i*; in this case, both vowels remain short.

- (1) PM 1 ^{*}*h-ák*, 2 ^{*}*ʔ-ák*, 3 ^{*}*[j]ik*; CISL ^{*}*n-äk* ‘to go away’ > Mk 1 *h-ak*, 2 *ʔ-ak*, 3 *ik*; CISL *n-ek* • Ni 1 *x-ák*, 2 *ʔ-ák*, 3 *[j]itf*; CISL *n-atf* • PCh 1 *ʔák*, 2 ^{*}*hl-ék* • PW 2 ^{*}*ʔ-eq*, 3 ^{*}*[j]iq*; CISL ^{*}*n-eq*
- (2) PM ^{*}*-áp*, 3 ^{*}*[j]ip* ‘to cry’ > Mk *-ap*, 3 *ip* • Ni *-ap*, 3 *[j]ip* • PCh ^{*}*[j]áp* • PW ^{*}*[j]ip*
- (3) PM ^{*}*ʔ-âq* ‘its food’ > Mk *ʔ-aq* • Ni *ʔ-âk* • PCh ^{*}*hl-âk* • PW ^{*}*ʔ-âq*
- (4) PM ^{*}*n-âχ* ‘to end up’ > Mk *n-aχ* • Ni *n-âx* • PCh ^{*}*<n>óhw-APPL* • PW ^{*}*<n>ox^w*
- (5) PM ^{*}*ʔ-âφ* ‘its wing’ > Mk *ʔ-ef* • Ni *ʔ-aφ* • PW ^{*}*ʔ-ex^w*
- (6) PM ^{*}*ʔ-e* ‘its thorn’ > Mk *ʔ-iʔ* • Ni *ʔ-eʔ* • PCh ^{*}*hl-éʔ* • PW ^{*}*ʔ-e*
- (7) PM ^{*}*φiʔs* ‘leech’ > Ni *φiʔs* • PW ^{*}*x^wis*
- (8) PM ^{*}*φts-uʔk* ‘palm (*Copernicia alba*)’ > Mk *fits-uk* • Ni *φts-uʔk* • PCh ^{*}*hwis<úk>* • PW ^{*}*x^wits<uk^w>*

4 Word-level prosody

- (9) PM **(-)ła?* ‘louse’ > Mk *-<ij>łe?* • Ni *-ła?* • PCh **-hlá?* • PW **ła?*
- (10) PM **łeł* ‘white snail’ > Ni *łeł* • PW **łeł*
- (11) PM **(-)skā[?]t* ‘mesh’ > Ni *-stfa[?]t* • PW **sik[?]et*
- (12) PM **tā[?]ł* ‘to sprout’ > Mk *ta[?]ł* • Ni *tā[?]ł* • PCh **tā[?]ł* • PW **tā[?]ł*
- (13) PM **ti[?]φ* ‘to suckle’ > Mk *tu[?]f / -tu[?]f* • Ni *ti[?]φ* • PCh **[ʔi]tím* • PW **tip*
- (14) PM **tim* ‘to swallow’ > Mk *tim-xu?* / *-lim-xu?* • Ni *tim* • PCh **[ʔi]tím* • PW **tim*
- (15) PM **tis* ‘to invite, to pay’ > Mk *tis-ix / -tis-ix* • Ni *tis* • PCh **[ʔi]tís* • PW **tis*
- (16) PM **ti[?]x* ‘to dig’ > Mk *ti(°)x-APPL / -ti(°)x-APPL* • Ni *ti[?]f* • PCh **[ʔi]tíh-ij?* • PW **tiχ*
- (17) PM **tux* ‘to eat (tr.)’ > Mk *tux / -tux* • Ni *tux* • PCh **[ʔi]túm* • PW **tux^w*
- (18) PM **tsā(°)j* ‘spill!’ > PCh **sáj?* • PW **tsāj*
- (19) PM **xu(°)p* ‘grass’ > Mk *xup<’el>* • PCh **húp* • PW **hup*
- (20) PM **t-’a(°)q* ‘its rope, its cord’ > PCh **t-’ák* • PW **t-’aq*
- (21) PM **-ʔā(°)l*, 3 **[j]i(°)l* ‘to die’ > PCh **[j]á(°)l* • PW **[j]il^h*
- (22) PM **[t]’ás* ‘to step’ > Ni *[t]’ás* • PCh **[t]’ás* • PW **[t]’ás-APPL*
- (23) PM **t-’áx* ‘skin, bark’ > Mk *t-’ax* • Ni *t-’áx* • PCh **t-’áh* • PW **t-’áχ*
- (24) PM **[t]’ä(°)k* ‘to eat (intr.)’ > Mk *[t]’ek* • PW **[t]’eq*
- (25) PM **[j]im* ‘to dry out’ > Mk *[j]im* • Ni *[j]im* • PCh **[j]ím-APPL* • PW **[j]im*
- (26) PM **ʔis* ‘good’ > Ni *ʔis* • PCh **ʔis* • PW **ʔis*
- (27) PM **[j]om* ‘to be extinguished’ > Mk *[j]om* • PCh **[j]óm-APPL* • PW **[j]om*
- (28) PM **[j]o* ‘to be ripe’ > PCh **[j]ó-ʔe?* • PW **[j]o*

The accretion of a plural suffix to an unaccented monosyllabic noun invariably results in an orthotonic form. Suffixes of the shape *-VC* are stressed in Chorote in such cases, and in ’Weenhayek they surface with a long vowel (recall that we indicate the long vowels of ’Weenhayek and Proto-Wichí by means of an acute accent).

- (29) Iyojwa'aja' (Carol 2014a: 92)
- ʔés* 'it is good' → *ʔif-ís* 'they are good'
 - t-'ák* 'its rope, cord' → *t-'ak-áʔ* ~ *t-'ak-áʔl* 'its ropes, cords'
 - t-'áx* 'its skin' → *t-'eh-és* 'its skins'
- (30) Iyo'awujwa' (Gerzenstein 1983: 176)
- hóp* 'maize' (etymologically 'grass.SG') → *hup-áj* 'grass' (etymologically 'grass.PL')
- (31) Manjui (Carol 2018)
- hóp* 'maize.SG' → *hup-ájh* 'maize.PL, grass'
 - ʔéis* 'it is good' → *ʔas-éis* 'they are good'
- (32) 'Weenhayek (Claesson 2016: 95, 96, 158, 235)
- hup* 'grass.SG; house made of hay' → *hup-úç* 'grass.PL; houses made of hay'
 - ʔ-ex^w* 'its wing' → *ʔ-ex^w-ís* 'its wings'
 - t-'aq* 'its tie' → *t-'aq-áč* 'its ties'
 - t-'áx* 'its skin' → *t-'áh-és* 'its skins'

If the plural suffix takes a non-moraic allomorph, the resulting plural form becomes orthotonic (as shown by the 'Weenhayek reflexes), even though the plural suffix does not constitute a syllable on its own.

- (33)
- PM **ʔ-áq* 'its food' > Mk *ʔ-aq* • Ni *ʔ-ák* • PCh **hl-ák* • PW **ʔ-áq*
 - PM **-qá-ts* 'food.PL' > Mk *-qa-ts* • Ni *-ká-s* • PCh **-qá-s* • PW **-qá<s>*
 - PM **-ka* 'tool, skillful person' > Ni *-tʔaʔ* • PCh **-k^jáʔ* • PW **-k^ja*
 - PM **-ká-l* 'tools, skillful persons' > Ni *-tʔa-k* • PCh **-k^já-l* • PW **-k^já-l^h*

We propose that the suffixes PM **-l*, **-j^h*, and **-ts* contain an underlyingly accented vowel, which surfaces in the allomorphs **-él*, **-áj^h*, **-íts* (see §5.2). The accent is preserved even when the underlying vowel is elided, as can also be seen in the plural forms of disyllabic enclina (§4.2.1).

4 Word-level prosody

4.1.2 -

Monosyllabic orthotonic words are reflected as monosyllables with a long vowel in 'Weenhayek and, consequently, in Proto-Wichí, as shown below. In (48), (56), and (57), the word-initial consonant cluster is resolved by means of inserting an unstressed vowel in Chorote and a short vowel in Wichí, respectively. Recall that we indicate long vowels of Proto-Wichí by means of an acute accent.

- (34) PM **t-áʔ* 'its light, its brightness' > PCh **t-áʔ* • PW **t-áʔ^h*
- (35) PM **n-át* 'to fall on its own' > Ni *n-at* • PW **<n>át*
- (36) PM **t-áʔ* (*-j^h) 'its fruit' > Mk *t-eʔ* (-j) • Ni *t-aʔ* (-j) • PCh **hl-áʔ* (*-j^h) • PW **t-áʔ* (*-j^h)
- (37) PM **n-ám* 'to arrive' > Mk *n-am* • Ni *n-am* • PCh **n-ám* • PW **<n>ám*
- (38) PM **-áʔm* 'pronominal formative' > PCh **-áʔm* • PW **-áʔm*
- (39) PM **[t](ʔ)án* 'to shout' > Mk (?) *[t]ʔan* 'to win' • Ni *[t]án* • PCh **[t]án* • PW **[t]án*
- (40) PM **[j]án* 'to put' > Mk *[j]en-APPL* • Ni *[j]an* • PCh **[j]én* • PW **[j]én*
- (41) PM **t-áʔs* 'her/his son' > Mk *t-aʔs* • Ni *t-áʔs* • PCh **hl-ás* • PW **t-ás*
- (42) PM **t-áʔt* 'her/his drink' > Ni *t-áʔt* • PCh **hl-át* • PW **t-át*
- (43) PM **t-ǎʔj* 'yica bag' > Ni *t-aʔj* • PCh **hl-éjʔ* • PW **t-éj*
- (44) PM **t-éj* 'her/his name' > Mk *t-ij* • Ni *t-ej* • PCh **hl-éjʔ* • PW **t-éj*
- (45) PM **kóʔl* 'locust' > PCh **kóʔl* • PW **kʲól^h*
- (46) PM **kús* ~ **kúts* 'heat' > Mk (?) *kus* (*Pyrocephalus rubinus*) • Ni *kus* • PCh **kús-APPL*
- (47) PM **kúʔX₁₂* 'sweat' > Ni -ʔ*β-kuʔx* • PW **kʲúx^w*
- (48) PM **khát* 'cactus' > Mk *khat-uʔk* • Ni *kxat* • PCh **kâhát* • PW **kʲâhát*
- (49) PM **(-)lkǎ(ʔ)t* 'nasal mucus, cold' > Mk *-leke(ʔ)t* • PCh **két* • PW **kʲét-tax*, **kʲét-ta-s*
- (50) PM **máh* 'go!' > Mk *ma* • Ni *má* • PCh **má^h* • PW **máh*
- (51) PM *ʔ*mók* 'zorzal bird (*Turdus* sp.)' > Mk *mok* • Ni *mok* • PCh *ʔ*mók*
- (52) PM **(-)nú(ʔ)* (*-ts) 'bone' > Mk *-nu* (-ts) • Ni *-nuʔ* (-s) • PW **nú(ʔ)*
- (53) PM **t-ó* (*-l) 'his penis' > Ni *t-oʔ* (-k) • PCh **hl-óʔ* (*-l) • PW **t-ó* (*-l^h)
- (54) PM **t-óʔ* (*-j^h) 'its seed' > Mk *t-oʔ* (-j) • PCh **hl-óʔ* • PW **t-óʔ* (*-j^h)

- (55) PM *púm ‘drum’ > PCh *púm • PW *púm
- (56) PM *stá-ʔq ‘toothpick cactus (*Stetsonia coryne*)’ > PCh *ʔstá-k • PW *ʔistá-q
- (57) PM *tlúʔk ‘blind’ > Ni taklúʔk • PCh *tʔlúk • PW *tilúkʷ
- (58) PM *tós ‘snake’ > Ni tos • PCh *tós
- (59) PM *tún ‘hard’ > Mk t’un • Ni t’un • PCh *t’un • PW *t’un
- (60) PM *t-úʔp ‘its nest’ > Mk t-up • Ni t-uʔp • PCh *hl-úp • PW *t-úp
- (61) PM *wVʔχ, *wVʔ-ts ‘large, fat’ > Ni -βáʔx • PCh *wúh, *wú-s • PW *wúxʷ, *wú-s
- (62) PM *ʔwá(ʔ)x ‘stagnant water’ > PCh *hl-<a>ʔwáh • PW *ʔwáχ
- (63) PM *X₁₃óʔk ‘palo santo (*Bulnesia sarmientoi*)’ > Ni xoʔk • PCh *hók • PW *hókʷ
- (64) PM *X₁₃óʔt ‘sandy place’ > Ni xoʔt • PCh *hót • PW *hót
- (65) PM *[t]ʔáʔt ‘to ask’ > Ni [t]ʔaʔt • PCh *[t]ʔát • PW *[t]ʔát
- (66) PM *t-ʔí (*-l) ‘liquid, juice’ > Mk t-ʔiʔ (-l) • Ni t-ʔiʔ (-k) • PCh *t-ʔiʔ (*-l) • PW *t-ʔí (*-lʰ)
- (67) PM *ʔúʔt ‘to urinate’ > Mk uʔt / -ʔuʔt • Ni [j]uʔt / -ʔuʔt • PCh *[t]ʔúʔt • PW *[t]ʔúʔt

Evidence for the ancient opposition between unaccented and accented monosyllables comes not only from Weenhayek, but also from Chorote: in PM orthotonic monosyllables, the stress never moves to the suffix in Chorote, as in (68)–(70), unlike what happens in enclimena in examples such as (29)–(31).

- (68) Iyojwa’aja’ (Drayson 2009: 131, 132)
- hl-éʔ ‘her/his/its name’ → hl-éj-is ‘her/his/its names’
 - hl-óp ‘its nest’ → hl-óp-is ‘its nests’
- (69) Iyo’awujwa’ (Gerzenstein 1983: 125, 176, 176, 183)
- éj ‘yica bag’ → -éj-is ‘yica bags’
 - hl-úp ‘its nest’ → hl-úp-is ‘its nests’
 - hók ‘palo santo tree’ → hók-iʔ ‘palo santo trees’
 - tóxs ‘snake’ → tóxs-is ‘snakes’

4 Word-level prosody

(70) Manjui (Carol 2018)

- a. *-át* ‘drink.SG’ → *-át-es* ‘drink.PL’
- b. *-éjʔ* ‘name’ → *-éj-is* ‘names’
- c. *-éjʔ* ‘yica bag’ → *-éj-is* ‘yica bags’
- d. *ʔmók* ‘zorzal bird’ → *ʔmók-is* ‘zorzal birds’
- e. *hók* ‘palo santo tree’ → *hók-ej* ‘palo santo trees’
- f. *hót* ‘sand.SG (small quantity of sand)’ → *hót-ej* ‘sand.PL (large patch of sand)’
- g. *hl-óp* ‘its nest’ → *hl-óp-is* ‘its nests’
- h. *tós* ‘snake’ → *tóxf-is* ‘snakes’

4.2 Disyllabic words

This section discusses the distinction between unaccented (“enclina”) and two types of accented (“iambic” and “trochaic”) disyllables of Proto-Mataguayan. All three types have clearly distinct reflexes in ʔWeenhayek (and, consequently, in Proto-Wichí): the reflexes of disyllabic enclina have two short vowels in that variety, iambic disyllables are reflected as words with a short vowel followed by a long one, and trochaic disyllables are reflected as words with a long vowel followed by a short one. In Chorote, the former two types (enclina and iambic disyllables) merge: both are reflected as disyllables with stress falling on the final syllable. PM trochaic disyllables remain distinct in Chorote (and possibly in Nivaçle): they receive stress on the initial syllable.

4.2.1 ~

Disyllabic enclina are reconstructed based on evidence from ʔWeenhayek: in that variety, a disyllabic word may lack long vowels altogether. The cognates in Chorote and Nivaçle have default (final) stress.

(71) PM **φajXoʔ* ‘coal’ > Ni *φajxoʔ* • PCh **hwa(h)jo-* • PW **x^wijho(?)*

(72) PM **jiʔjáʔX₁₂* ‘jaguar’ > Ni *jiʔjáʔx* • PCh **ʔaʔjáh* • PW **haʔjáχ*

(73) PM **jiʔláʔ* ‘tree’ > Ni *jiʔkláʔ* • PCh **ʔaʔláʔ* • PW **haʔlá*

(74) PM **jiʔno* ‘man’ > PCh **ʔiʔnóʔ* • PW **hiʔno*

(75) PM **jitʔáʔ* ‘vulture’ > Ni *jitʔáʔ* • PCh **ʔatʔáʔ* • PW **hatʔáʔ(?)*

(76) PM **kowäʔx* ‘hole’ > PCh **kowéh* • PW **k^jowex*

- (77) PM **ntá(°)k* ‘two’ > PCh **nták* • PW **niták^w*
- (78) PM **qati°ts* ‘star’ > Ni *kati°s* • PCh **qatés* • PW **qates*
- (79) PM **tijá°χ* ‘to shoot, to throw’ > Mk *tija°χ* / -*tija°χ* • Ni *tijá°x* • PCh **[ʔi]tíjáh* • PW **tijáχ*
- (80) PM **tiłá°x* ‘to carry on one’s shoulders’ > Mk *tiło°x* / -*tiło°x* • Ni *tiłá°x* • PCh **[ʔi]tíhlâh* • PW **tiłáχ*
- (81) PM **t-uwa* ‘its termite house’ > Ni *t-uβa* • PW **<t>uwa*
- (82) PM **wije?* ‘caraguatá (*Bromelia serra*)’ > Ni *βije?* ~ *jije?* • PCh **wijé?* • PW **°wuje(?)*
- (83) PM **°wäle°k* ‘to walk’ > Mk -*<i>°welki-°met* ‘to limp’ • Ni *βaklé°tf* • PCh **[ʔi]°wélek* • PW **°weleq*
- (84) PM **X₁₃on-xa°χ* ‘night’ > Ni *<xon>fa°x* • PCh **<?a>h<n>áh* ~ **<?á>h<n>áh* • PW **<hon>aχ*
- (85) PM **t-°ałá(?)* ‘fat’ > PCh **t-°ahlá?* • PW **t-°ałá(?)*
- (86) PM **ʔat°e(°)(t)s* ~ **ʔat°ä(°)(t)s* ‘aloja drink’ > PCh **ʔat°és* • PW **hat°és*
- (87) PM **ʔatsXa(?)* ‘dorado’ > PCh **ʔasá?* • PW **ʔatsha(?)*
- (88) PM **t-°äsχa°n* ‘meat’ > Mk *t-°ese°n* • Ni *t-°asxa°n* • PCh **t-°isá°n* • PW **t-°isa°n*

The same combination occurs when an unaccented moraic prefix is added to an unaccented monosyllabic root. The following roots typically show up with a moraic prefix:

- (89) PM **-φom* ‘to throw, to push’ > PCh **[ʔi]hwóm-ah* • PW **[t]x^wom*
- (90) PM **[ji]ka°χ* ~ **[ji]ká°χ* ‘to take away’ > Mk *[j]<e>ka°χ* • Ni *[ji]tfa°x* • PW **[ji]k^jáχ*
- (91) PM **-ká°s* ‘tail’ > Ni *-ká°s* • PCh **-kás* • PW **-k^jás*
- (92) PM **[ji]ká?* ‘to be torn’ > PCh **[ʔi]ká?* • PW **[ʔi]k^já?*
- (93) PM **-kφe(?)* ‘ear’ > Mk *-kfi?* • Ni *-kφe?* • PW **-(t-)k^we<j>* / **-(t-)k^we-* ‘arm, hand’
- (94) PM **-ko(°)j* ‘hand, arm’ > Mk *-koj* • PCh **-kój?*
- (95) PM **-k°u* ‘horn, club’ > Mk *-k°u* • Ni *-k°u?* • PCh **-k°ú?* • PW **-k^j°u*
- (96) PM **[ji]lá°j* ‘to withstand’ > Ni *[ji]klá°j* • PCh **[ji]láj-eh* • PW **[ji]láj*

4 Word-level prosody

- (97) PM *-lâ? ‘domestic animal’ > Ni -kĭlâ? • PCh *-lá<hwah> • PW *-lâ?
- (98) PM *-’li’x ‘language, word’ > Mk -’lix<el?> • Ni -’kĭli’f • PCh *-’lĭh
- (99) PM *-ka ‘tool, skillful person’ > Ni -tfa? • PCh *-k’á? • PW *-k’á
- (100) PM *-tu’k ‘yica bag, load’ > Mk -tuk • Ni -tu’k • PCh *-hlúk • PW *-tuk^w
- (101) PM *[ji]mâ ‘to sleep’ > Mk [i]ma? • Ni [ji]mâ? • PCh *[ʔi]mâ? • PW *[ʔi]mâ
- (102) PM *-nji’x ‘smell’ > Mk -nji’x • Ni -ni’f • PCh *-nĭh • PW *-niχ
- (103) PM *-pe(?) ‘fat’ > Ni -<a>pe? • PCh *-pé? • PW *-pe(?)
- (104) PM *-p’o’k ~ *-φ’o’k ‘fence’ > Ni -p’o’k • PCh *-p’ók • PW *-p’ok^w
- (105) PM *-p’o’t ‘lid’ > Mk -p’ot<o?> • Ni -p’o’t • PCh *-p’ót • PW *-p’ot
- (106) PM *-sâ’t ‘vein’ > Mk -<ʔa>sa’t • Ni -sâ’t • PCh *-sât- • PW *-sât
- (107) PM *-su(?) ‘vagina’ > Mk -su? • Ni -su? • PCh *-<i>su? • PW *-su(?)
- (108) PM *-tä(?)ts, *-täts-él ‘trunk, base’ > PCh *-tés (*-el) • PW *-tes, *-têts-el^h
- (109) PM *-te? ‘eye’ > Mk -t<o?> • PCh *-ta-té? • PW *-t(a)-te?
- (110) PM *[ji]tsâ(?)j ‘to spill’ > PCh *[ʔi]sáj? • PW *[ʔi]tsáj
- (111) PM *[ji]wo’m ‘to throw’ > Mk [i]wu’m • PCh *[ʔi]wóm-APPL • PW *[ʔi]wo’m
- (112) PM *[ji](t)s’u(?) ‘to suck’ > PCh *[ʔi]ts’ú-APPL • PW *[hi]ts’u(?)
- (113) PM *-’wät ‘place’ > Mk -’wet • Ni -’bat • PCh *-’wét • PW *-’wet
- (114) PM *-’wo ‘neck’ > Mk -wo<nxe?> • Ni -’βo? • PCh *-’wó? • PW *-’wo
- (115) PM *-’wu(?)j ‘clothes, blanket’ > PCh *-’wúj? • PW *-’wuj
- (116) PM *-xa ‘price’ > Ni -fa? • PW *-ha
- (117) PM *...X₂₃a’t ‘earth’ > Ni <kots>xa’t • PCh *-<ʔa>h<n>át ~ *-<ʔá>h<n>át • PW *-<hon>hat
- (118) PM *-X₁₃u’k ‘firewood’ > Ni -xu’k • PCh *(ʔitáh)-huk • PW *-huk^w

The following roots can occur with a zero 3.RLS prefix and form monosyllabic words, but they may also take a moraic unaccented prefix, and in this case they behave just like any other disyllabic enclina.

- (119) PM *tâ’ł ‘to sprout’ > Mk ta’ł • Ni tâ’ł • PCh *tát • PW *tâł
- (120) PM *ti’φ ‘to suckle’ > Mk tu’f/ -tu’f • Ni ti’φ • PCh *[ʔi]tĭm • PW *tip
- (121) PM *tim ‘to swallow’ > Mk tim-xu? / -tĭm-xu? • Ni tim • PCh *[ʔi]tĭm • PW *tim

- (122) PM **tis* ‘to invite, to pay’ > Mk *tis-ix* / *-tis-ix* • Ni *tis* • PCh **[ʔi]tís* • PW **tis*
- (123) PM **tiʔx* ‘to dig’ > Mk *ti(?)x-APPL* / *-ti(?)x-APPL* • Ni *tiʔf* • PCh **[ʔi]tíh-ijʔ* • PW **tiχ*
- (124) PM **tux* ‘to eat (tr.)’ > Mk *tux* / *-tux* • Ni *tux* • PCh **[ʔi]túM* • PW **tux^w*

Note that disyllabic unaccented nouns become orthotonic in the plural form, even if the plural form has the same amount of syllables as the singular one. This can be seen most clearly in ’Weenhayek pairs of singular and plural nouns (125).

- (125) ’Weenhayek (Claesson 2016)
- a. *hiʔnoʔ* ‘man’ → *hiʔnó-t* ‘men’
 - b. *x^wiçoʔ* ‘coal’ → *x^wiçó-t* ‘coals’
 - c. *la-k^juʔ* ‘its horn’ → *la-k^jú-t* ‘its horns’
 - d. *haʔlâʔ* ‘tree’ → *haʔlá-ç* ‘trees’
 - e. *qak^jaʔ* ‘medicine’ → *qak^já-t* ‘medicines’
 - f. *ʔats^haʔ* ‘dorado’ → *ʔats^há-ç* ‘dorados’
 - g. *la-lâʔ* ‘her/his pet’ → *la-lá-ç* ‘her/his pets’
 - h. *ta-teʔ* ‘her/his eye’ → *ta-té-ç* ‘her/his eyes’
 - i. *k^jowex* ‘hole’ → *k^jow-áç* ‘holes’
 - j. *towex* ‘pan; kind of drum’ → *tow-áç* ‘pans; drums’

We propose that the suffixes PM **-l*, **-j^h*, and **-ts* contain an underlyingly accented vowel, which surfaces in the allomorphs **-él*, **-áj^h*, **-íts* (see §5.2). The accent is preserved even when the underlying vowel is elided.

4.2.2 \sim

Iambic disyllables are reconstructed based on evidence from ’Weenhayek. Their reflexes in Chorote and Nivaçle also have default (final) stress and are thus indistinguishable from the reflexes of enclitomena.

- (126) PM **ɸaʔáj* ‘algarrobo fruit (*Prosopis alba*)’ > Ni *ɸaʔaj* • PCh **hwaʔájʔ* • PW **x^waʔáj^h*
- (127) PM **ɸiʔjât* ‘cold weather, south wind’ > Ni *ɸiʔjat* • PCh **hwiʔjét* • PW **x^wiʔjét*
- (128) PM **jijáʔts* ‘dew’ > Mk *ijeʔts* • Ni *jijaʔs* • PCh **ʔijés-tah* • PW **ʔijás*

4 Word-level prosody

- (129) PM *jináʔt ‘water’ > Ni jináʔt • PCh *ʔiʔnát • PW *ʔinát
- (130) PM *kʼalxó (*-ts) ‘armadillo sp.’ > Mk kʼoloʔx • Ni kʼakxo (-s) • PCh *kʼihlóló? (*-s) • PW *kʼʲanhóh
- (131) PM *kʼutX₂₃áʔn ‘thorn’ > Ni kʼutxaʔn • PCh *kʼutáʔn • PW *kʼʲutháʔn
- (132) PM *mijó (*-l) ‘savannah hawk’ > Mk mijo (-l) • Ni mijo (-k) • PCh *mijó? (*-l) • PW *mijóh
- (133) PM *pâttséχ ‘jabiru’ > Ni pátsex • PCh *pâtsáh • PW *pâtsáχ
- (134) PM *pátóχ ‘to be deep’ > Ni [ʔa]patox • PCh *-pítóhw<ijʔ> • PW *pitóχ^w
- (135) PM *pitéχ, *pité-ts ‘long’ > Ni pitex, pite-s • PW *pitáχ, *pité-s
- (136) PM *tsáháq ‘chajá bird’ > Mk tsahaq • PCh *sáhák • PW *tsáháq
- (137) PM *tsänúʔk ‘duraznillo trees’ > Ni tsanuʔk • PCh *sinúk • PW *tsinúk^w
- (138) PM *ʔ[n]áφé(ʔ)ʔ ~ *ʔ[n]áφá(ʔ)ʔ ‘to be ashamed’ > PCh *ʔ[n]áhvéʔ • PW *ʔ[n]áx^wéʔ ~ *ʔ[n]áx^wél^h

The same combination occurs when an unaccented moraic prefix is added to an accented monosyllabic root. The following roots typically show up with a moraic prefix:

- (139) PM *[ji]φáʔx ‘to cut down’ > Mk fex-inet-ki? ‘ax’ • Ni [ji]φaʔf • PCh *ʔi]hwáh-APPL • PW *ʔi]x^wáχ
- (140) PM *[ji]φál ‘to tell’ > Mk n(i)-fel-im • Ni n(i)-φak / n(i)-φakl̄- • PCh *ʔi]hwél • PW *ʔi]x^wél^h / *ʔi]x^wél-
- (141) PM *-φχúx, *-φχú-ts ‘finger’ > Mk -fux • Ni -φxux, -φxu-s ‘toe’ • PCh *-hwu-kéʔ • PW *-x^wúx^w, *-x^wú-s
- (142) PM *-jáʔ ‘breath’ > Ni -jaʔ • PCh *-jáʔ • PW *-jáʔ
- (143) PM *[ji]jáʔ ‘to drink’ > Mk <i>jaʔ • Ni [ji]jáʔ • PCh *ʔi]ʔjáʔ • PW *ʔi]jáʔ
- (144) PM *[ji]káʔ(ʔ)t ‘to be red’ > PCh *ʔi]káʔ • PW *ʔi]kʲáʔ
- (145) PM *[ji]kén ‘to send’ > Mk [j]<u>kin • Ni [ji]tʃen • PCh *ʔi]kén • PW *ʔi]kʲén
- (146) PM *[ji]kúʔʔ ‘to answer’ > Mk [j]<e>kuʔʔ • Ni [ji]kuʔʔ • PCh *ʔi]kúhl-APPL • PW *ʔi]kʲúʔ
- (147) PM *k(ʼ)utsá(ʼ)X₁₂ ~ *k(ʼ)utsé(ʼ)χ ‘cháguar (*Bromelia hieronymi*)’ > PCh *kʼusáh • PW *kʼutsáχ

- (148) PM *[ji]k'ǎn 'to stretch out' > Ni [ji]tʃʰan • PCh *[ʔi]k'én-APPL • PW *[hi]kʲ'én
- (149) PM *-k'ú-l 'horns, clubs' > Mk -k'u-l • Ni -k'u-k • PCh *-k'ú-l • PW *-kʲ'ú-l^h
- (150) PM *[ji]lǎn 'to kill' > Mk [ji]lan • Ni [ji]klǎn • PCh *[ʔi]lǎn • PW *[ʔi]lǎn
- (151) PM *[ji]lá(ʔ)t 'to feel' > PCh *[ʔi]lát-ej^h • PW *[ʔi]lát
- (152) PM *-léts 'offspring' > Mk -lits • Ni -kles • PCh *-lés • PW *-lés
- (153) PM *[ji]léʔx 'to wash' > Mk [ji]lix-uʔ 'to clean' • Ni [ji]kleʔf • PCh *[ʔi]léh
• PW *[ʔi]léχ
- (154) PM *[ʔa]lóch, *[ʔa]ló-ts 'many' > Mk <o>lo<ts> • Ni <ʔa>klox • PCh *[ʔa]ʔlöh
• PW *<ʔa>ló<s>
- (155) PM *[ji]lXón 'to roast' > Ni [ji]kxon • PCh *[ʔi]hlón • PW *[t]nhón
- (156) PM *[ji]táʔm 'to defecate' > Mk <i>taʔm • Ni [ji]táʔm • PCh *[ʔi]hláʔm •
PW *[t]<a>táʔm
- (157) PM *[ji]tǎn 'to light fire' > Mk [ni]tǎn-APPL • Ni [ji]tǎn • PCh
*[ʔi]hlǎn-APPL • PW *[ʔi]tǎn-APPL
- (158) PM *(-)té(ʔ)t 'firewood' > Mk tit<uʔ> • PCh *-<ʔa>hlét ~ *-<ʔa>hlét • PW
*-tét
- (159) PM *-tú-j^h 'yica bags, loads' > Mk -tú-j • PCh *-hlúj-... • PW *-tú-j<is>
- (160) PM *-máʔk, *-mhá-j^h 'powder, flour' > Ni -máʔk, -mxá-j • PCh *-mák •
PW *-mók^w, *-mhó-j^h
- (161) PM *-náj^h 'to bathe' > Ni [βa]naj • PCh *[ʔi]náj-APPL • PW *[ʔi]náj^h
- (162) PM *[t]pǎʔj 'to be bitter' > Ni [t'a]pǎʔj • PCh *páhj-iʔ • PW *[t]páj
- (163) PM *[ʔi]pén ~ *[ʔi]pǎn 'to cook' > PCh *[ʔi]pén • PW *[ʔi]pén
- (164) PM *[t]píl 'to return hither' > Mk [t(e)]pil • Ni [t(a)]pik ~ [t(a)]pek • PW
*[t]píl^h
- (165) PM *-qá-ts 'food.PL' > Mk -qa-ts • Ni -ká-s • PCh *-qá-s • PW *-qá<s>
- (166) PM *-qéj (*-its) 'custom' > Ni -kej (-is) • PCh *-qéjʔ (*-is) • PW *-qéj (*-is)
- (167) PM *-q'á(ʔ)X₁₂ 'tongue' > PCh *-q'áh • PW *-q'áχ 'mouth'
- (168) PM *spú(ʔ)p 'dove' > PCh *sʔpúp • PW *spúp
- (169) PM *[ji]-tXá(ʔ)t 'to throw, to put' > PCh *[ʔi]tát-APPL • PW *[ʔi]thát
- (170) PM *-t'é-l 'tears' > Mk -t'i-l • Ni -t'e<kǎ>-is • PCh *-t'é<l>-is
- (171) PM *-t'un 'hard' > Mk -t'un • Ni -t'un • PCh *-t'un • PW *-t'un

4 Word-level prosody

- (172) PM *-wáʔk ‘bad mood’ > Mk -wak • Ni -βáʔk • PCh *-wák • PW *-wák^w
- (173) PM *-wáʔx, *-w(ä)x-áj^h ‘burrow; anus’ > Ni -βaʔf, -βaf-aj^h • PCh *-wéh • PW *-wéχ, -wh-áj^h
- (174) PM *-wó (*-ts) ‘worm’ > Ni -βoʔ (-s) • PCh *-wóʔ (*-s) • PW *-wó (*-s)
- (175) PM *-w(t)s'é (*-l) ‘belly’ > Ni -βts'e (-k) • PCh *-ts'éʔ (*-l) • PW *-ts'é (*-l^h)
- (176) PM *[ji]ʔwán ‘to see’ > Mk [ji]ʔwen • Ni [ji]ʔβan • PCh *[ʔi]ʔwén • PW *[hi]ʔwén
- (177) PM *-xiǰ^h ‘recipient’ > Mk -xij • Ni -fiǰ / -xij • PW *-híh
- (178) PM *[ji]wún ‘to burn (tr.)’ > PCh *[ʔi]wún • PW *[ʔi]wún
- (179) PM *[ji]X₁₃út ‘to push’ > Ni [ji]xut • PCh *[ʔi]hút • PW *[ji]hút

The same combination arises when an unaccented monosyllabic root takes an accented plural suffix, as in ʔWk ʔwojís ‘blood (plurale tantum)’, derived from PM *(-)ʔwoʔj ‘blood’ by means of the plural suffix -ís. For more examples, see (29)–(32) above.

4.2.3 ~

Trochaic disyllables are reflected in the following way. In ʔWeenhayek, they have a long vowel in the initial syllable and a short one in the final syllable. In Chorote, they have initial stress. In Nivaçle, they sometimes also have initial stress, which is not typical for the language (Gutiérrez 2015b); so, for example, in ʔóφo (-s) ‘dove’ (Gutiérrez 2015b: 267), ʔ-áse ‘her/his daughter’, ʔútsxa ‘girl’, ʔúta ‘tapeti rabbit’, ʔítetf ‘plate’, ʔnáβâp ~ ʔnáβâp ‘spring’, ʔékle ‘parrot’ (Analía Gutiérrez, 2023, personal communication), or ʔúʔu ‘dog’ (Campbell et al. 2020: 34), though variation has been attested. In addition, final PM glottal stop is lost in trochees in Nivaçle and Wichí – at least in its Lower Bermejeño variety, as documented by Nercesian (2014) – as in (180), (186), (214), (260), further described in §7.1.1.8 and §9.1.1.14. (257) has an irregular reflex in Nivaçle: not only does it irregularly reflect PM *ʔe as *ji*, but it also has final stress (Analía Gutiérrez, 2023, personal communication), which does not match the evidence from Chorote.

- (180) PM *ʔ-á(-j^h)-xiʔ (*-l) ‘her/his mouth’ > Mk ʔ-e<xiʔ> (-l) • Ni ʔ-a<fi> (-k) • PCh (?) *hl-á<ajʔ> • PW ʔ-áj-hi (*-l^h)
- (181) PM *ʔ-áwâ(?) ‘its flower’ > Ni ʔ-aβâ • PCh *hl-áwoʔ • PW *ʔ-áwo
- (182) PM *ʔ-áme(?)t / ʔ-ámte- ‘her/his word’ > PCh *hl-ámt- • PW *ʔ-ámet, ʔ-ámte-s

- (183) PM **t-áni*'s 'its stinger' > Mk *t-ani*'s • Ni *t-ánis* • PCh **hl-ánis* • PW (?) **t-á'ni*
- (184) PM **-ápil* 'to return thither' > Mk [*w*]apil • Ni [*β*]apek • PCh *[[*j*]ápil • PW *[[*j*]ápil^h
- (185) PM *[[*j*]á^hp'ä(°)t ~ *[[*j*]á^hφ'ä(°)t 'to burn' > Ni [[*j*]ap'a^ht • PCh *[[*j*]á^hp'e^ht • PW *[[*j*]á^hp'e^ht
- (186) PM **t-áse?* 'her/his daughter' > Mk *t-asi?* • Ni *t-áse* • PCh **hl-áse?* • PW **t-áse*
- (187) PM **t-á't* 'her/his drink' > Ni *t-á't* • PCh **hl-át* • PW **t-át*
- (188) PM **t-áte(?)* (*-j^h) 'her/his jar' > PCh **hl-áte?* (*-j^h) • PW **<xj>áte* (*-j^h)
- (189) PM *[[*j*]á^hte(°)χ 'to be fat' > Ni [[*j*]á^htex • PCh *[[*j*]á^htah • PW *[[*j*]á^htaχ
- (190) PM *[[*j*]ék^hφa^hx 'to bite' > Mk [[*j*]ik^hfe^hx • PCh *[[*j*]ók^hwah • PW *[[*j*]ók^hax
- (191) PM **t-éle(?)* ~ **t-ále(?)* (*-j^h) 'its inhabitant, inner' > PCh **hl-éle?* (*-j^h) 'its inhabitant, her/his intestine' • PW **t-éle* (*-j^h)
- (192) PM **φátsu(°)χ*, **φátshu-ts* 'centipede' > Ni *φatsux*, *φatsxu-s* • PCh *(*h*)wásuh, *(*h*)wásu-s • PW **x^wátsux^w*
- (193) PM **φilá(°)X₁₂* 'pocote (*Solanum sp.*)' > PCh **hwilâh* • PW **x^wilâχ*
- (194) PM **φétä'ts* 'root' > Mk *fitets* • PW **x^wétes*
- (195) PM **φinä(°)χ* 'crab' > Ni *φinax* • PCh **hwíneh*
- (196) PM **φkéna(°)χ* 'north wind, north' > Ni *φt^hfenax* • PCh **hw^hkénah*
- (197) PM **φtsána(°)χ* 'suncho (*Baccharis sp.*)' > Ni *φtsánax* • PCh **sánah* • PW **x^witsánax*
- (198) PM **t-í(t)s'i(?)* (*-l) 'resin, sap' > Ni *t-its'i* (-k) • PCh **hl-íts'i?* (*-l) • PW **t-íts'i*
- (199) PM **ká'lah*, **ká'la-ts* 'lizard' > PCh **ká'lah*, **ká'la-s* • PW **k^já'lah*, **k^já'la-s*
- (200) PM **k'ék'eh* 'monk parakeet' > Ni *t^het^he* • PCh **kék'eh* • PW **k^jék^je*
- (201) PM **kó^jXa(°)t* 'to be heavy' > PCh **kó^hjat-APPL* • PW **k^jó^jhat*
- (202) PM **ktá'nih* 'Chaco tortoise' > PCh **kitá'nih* • PW **k^jtá'nih*
- (203) PM **ktéta(?)* ~ **ktáta(?)* 'white algarrobo fruit (*Prosopis elata*)' > PCh **kitéta?* • PW **k^jtéta*
- (204) PM **k'ú(t)sta(°)χ*, **k'ú(t)sta-ts* 'barn owl' > Ni (?) *k'ustax*, *k'usta-s* 'mockingbird' • PCh **k'ústah*, **k'ústa-s* • PW **k^jústaχ*

4 Word-level prosody

- (205) PM **láp'ih* ~ **láf'ih* 'snail' > Ni *klâp'i* • PCh **láp'ih*
- (206) PM **lkéte* 'squash' > Mk *lekiti* • PCh **kéte?*
- (207) PM **lútse(?)x* 'bow' > PCh **lúseh* • PW **lútsex*
- (208) PM **lúm?a* 'day' > Ni *lúm?a* • PCh **hlúma?*
- (209) PM **lútsX₂₃a(?)* 'girl' > Ni *lútsxa* • PCh **hlúsa?* • PW **lútsha*
- (210) PM **níltsa(?)X₁₂*, **níltsX₁₃a-ts* 'white-lipped peccary' > PCh **<?ih>nílsah*, **<?ih>nílsa-s* • PW **nítsaχ*, **nítsha-s*
- (211) PM **niják*, **nijhá-j^h* 'rope, cord' > Mk *nijak*, *nijha-j* • PCh **niják*, **níjhá-j^h* • PW **niják^w*, **níjhá-j^h*
- (212) PM **nú?uh*, **nú?u-ts* 'dog' > Ni *nú?u (-s)* • PCh **nú?uh*, **nú?u-s*
- (213) PM **nájji'x*, **nájix-aj^h* 'path' > Ni *nájif*, *nájf-aj* • PCh **nájih*, **nájh-aj^h* • PW **nájijχ*, **nájh-aj^h*
- (214) PM **njánxte?* 'tapeti rabbit, cavy' > Mk *nijaxti?* • Ni *nánxate* • PCh **náhâte?* • PW **náte*
- (215) PM **[j]ókφe(?)t)s* ~ **[j]ókφä(?)t)s* ~ **[j]ékφe(?)t)s* ~ **[j]ékφä(?)t)s* 'to frighten' > PCh **[j]ókwes* • PW **[j]ók^wes*
- (216) PM **pá'jih* 'frog (*Leptodactylus sp.*)' > PCh **pá'jih* • PW **pá'jih*
- (217) PM **pátse(?)χ* 'fast, quick' > Ni *pátsex* • PCh **(-)pásah*
- (218) PM **péta(?)j* 'rain' > Mk *piłej* • PCh **péhlaj?* • PW **pétaj^h*
- (219) PM **kpéna(?)X₁₂* ~ **kpána(?)X₁₂*, **kpénX₁₃a-ts* ~ **kpánX₁₃a-ts* 'orphan' > PCh **kpénah*, **kpéhna-s* • PW **k^lpénaχ*, **k^lpénha-s*
- (220) PM **púle(?) (*-ts)* 'sky, cloud' > PCh **púle? (*-s)* • PW **púle (*-s ~ *-łajis)*
- (221) PM **pútäh* 'tapeti rabbit' > Ni *puta* • PCh **púteh*
- (222) PM **qatsíwo(?)* 'limpkin' > PCh **qasíwo<?oh>* • PW **qatsíwo*
- (223) PM **sát'a(?)t)s* 'parakeet' > Ni *sat'as* • PCh **sát'as* • PW **sát'as*
- (224) PM **stáφe(?)* 'Chaco chachalaca' > PCh **?stáhwe?* • PW **?istáx^we*
- (225) PM **sláqha(?)j* 'wild cat' > Ni *sklâkxaj* ~ **sklâkxaj* • PCh **s^oláhqaj?* ~ **s^oláhqâj?* • PW **siláqhâj*
- (226) PM **sténi(?)* 'white quebracho' > Mk *sitin-u'k* • PCh **?sténi?* • PW **?isté'nih*
- (227) PM **s^owúla'χ*, **s^owúla-ts* 'anteater' > Ni *s^oβuklax*, *sβukla-s* • PCh **s^o?úlah*, **s^o?úla-s* • PW **súlaχ*

- (228) PM **táxçan* ‘to thunder’ > Mk *texen* • Ni *tafxen* • PW **t’áçan*
- (229) PM **tátsna*([?])*X*₁₂ ~ **tátsne*([?])*ç* ‘toad’ > PCh **tásVnah* • PW **tátnaç*
- (230) PM **téwo*([?])*k* [?] ~ **téwá*([?])*k* ‘river’ > Ni *toβok* ~ *toβák* • PCh **téwok* ~ **téwák* • PW **téwok*^w
- (231) PM **títe*([?])*k*, **títthe-j*^h ‘plate’ > Ni (-)*titetf*, (-)*titxe-j* • PCh **títek*, **títthe-j*^h
- (232) PM **tkéna*([?])*X*₁₂ ~ **tkána*([?])*X*₁₂, **tkén**X*₁₃*a-ts* ~ **tkán**X*₁₃*a-ts* ‘precipice; hill, mountain’ > PCh **t^hkénah*, **t^hkéhna-s* • PW **tk’énaç*, **tk’énha-s*
- (233) PM **tóç-APPL*, **tó-ts-APPL* ‘far’ > Mk *-toç-ij*, *to-ts-ij* • Ni *tox-APPL* • PCh **tóh(w)-APPL*, **tó-ts-APPL* • PW **tóç^w-ej^h*
- (234) PM **túku*([?])*(t)s* ‘ant’ > Ni *tukus* • PCh **túkus*
- (235) PM **túsu*([?])*(t)s* ‘lesser yellowlegs’ > Ni *tusus* • PCh **túsus* • PW **túsus*
- (236) PM **tútse*([?])*ç* ‘smoke’ > PCh **túsah* • PW **tútsaç*
- (237) PM **tsémłá*([?])*k* ~ **tsámłá*([?])*k* ‘silk floss tree’ > PCh **sémhlák* • PW **tsémłák^w*
- (238) PM **tsófa*([?]) ‘fruit of a shrub (*Maytenus vitis-idaea*)’ > PCh **sóhwa?* • PW **tsóç^wa(?)*
- (239) PM **tsóna*([?]) ‘red brocket’ > PCh **tsóna?* • PW **tsó’nah*
- (240) PM **ts’áts’ih*, **ts’áts’i-l* ‘rufous hornero’ > Mk *ts’its’i* (-*l*) • Ni *ts’ats’i* (-*k*) • PCh **sát’ih* • PW **táts’i*
- (241) PM *[*j*]*útá*([?])*ç* ‘to be tired’ > Mk *-ułá*([?])*ç* ‘breath’ • Ni [*j*]*ułáç* • PCh **[j]úhláh*
- (242) PM **wátá*([?])*ç* ‘palo flojo fruit’ > Ni *βátáç* • PW **wátóç^w*
- (243) PM **wkína*([?])*X*₁₂, **wkín**X*₁₃*a-ts* ‘metal’ > PCh **w^hkínah*, **w^hkínha-s* • PW **k’ínaç*, **k’ínha-ts*
- (244) PM **wóna*([?]) ‘bala wasp honey; hat’ > PCh **wóna?* • PW **wó’nah*
- (245) PM **wóp’ih* ~ **wóφ’ih* [?] ~ **móp’ih* ~ **móφ’ih* ‘white egret’ > PCh **wóp’ih* • PW **móp’i*
- (246) PM *[?]*wátshan* ~ *[?]*wátsçan* ‘to be healthy, alive’ > Ni *batsçan* • PCh *[?]*wása’n* • PW *[?]*wátshan*
- (247) PM *[?]*wósá*([?])*q* ~ *[?]*wósá*([?])*k* ‘butterfly’ > Ni *βosák* • PCh *[?]*wósák*
- (248) PM **xnáwá*[?]*p* ‘spring’ > Mk *xinawa*[?]*p* • Ni *fnaβáp* ~ *fnaβáp* • PCh **náwop* • PW **xnáwop*

4 Word-level prosody

- (249) PM **Xmáwoh* ‘fox’ > PCh **máwo-tah* • PW **xmáwoh*
- (250) PM **X₂₃wé’lah*, **X₂₃wé’la-ts* ‘moon’ > Ni *xibe’la* (-s) • PCh **wé’lah*, **wé’la-s* • PW **xwé’lah*
- (251) PM **ʔáʔtu(?)* ‘iguana’ > Ni *ʔaʔtu* (-s) • PCh **ʔáhlu?* (*-s) • PW **ʔáʔtu*
- (252) PM **ʔámʔáh*, **ʔámʔá-ts* ‘rat’ > Ni *ʔamʔá* (-s) • PCh **ʔámʔah* ~ **ʔámʔáh*, **ʔámʔa-s* ~ **ʔámʔá-s* • PW **ʔáma*
- (253) PM **ʔáp’a(?)*χ ~ **ʔáφ’a(?)*χ ‘jararaca’ > Ni *ʔap’ax* • PCh **ʔáp’ah*
- (254) PM **ʔáxa?* ‘stork’ > Mk *exe?* ‘maguari stock’ • PCh **ʔáha?* ‘jabiru’
- (255) PM **t-’áX₂₃te(?)* (*-j^h) ‘her breast’ > Ni *t-’axte* (-j) • PCh **t-’áhate?* (*-j^h) • PW **t-’áte* (*-j^h)
- (256) PM **ʔá’jtex*, **ʔá’jte-ts* ‘to hurt’ > Mk *aʔtaχ*, *aʔti-ts* • Ni *ʔá’jtex* ~ *ʔá’βtex* • PCh **ʔájʔtah-APPL*, **ʔájʔte-s-APPL* • PW **ʔájtaχ*, **ʔájte-s*
- (257) PM **ʔéja?* (*-l) ‘mosquito’ > Mk *ije?* (-l) • Ni *jija?* • PCh **ʔéja?* (*-l)
- (258) PM **ʔéle(?)* ‘parrot’ > Ni *ʔekle* • PCh **ʔéle?* • PW **ʔéle*
- (259) PM **ʔitá(?)*χ, **ʔitá-ts* ‘fire’ > Ni *ʔitáχ*, *ʔitá-s* • PCh **ʔitáh*, **ʔitá-s* • PW **ʔitáχ*, **ʔitá-s*
- (260) PM **ʔóφo?* (*-ts) ‘pigeon’ > Mk *ofo?* (-l) • Ni *ʔóφo* (-s) • PCh **ʔóhwo?* (*-s)
- (261) PM **ʔóna(?)*χ ‘my brother’ > Ni *ʔonax* • PCh **ʔónah*
- (262) PM **ʔúl’áh*, **ʔúl’á-ts* ‘dove’ > Ni *ʔukl’á* (-s) • PCh **ʔúl’áh*, **ʔúl’á-s*
- (263) PM **t-’úʔtu(?)* ‘her/his urine’ > Ni *t-’uʔtu* • PCh **t-’úhlu?* • PW **t-’úʔtu*

Words of this structure occur whenever a monosyllabic morpheme with underlying accent (either a prefix or a root) is combined with another monosyllabic morpheme regardless of the underlying accentual properties of the latter. The examples in (264) from Weenhayek instantiate the combination of a prefix with a long vowel (‘Wk *’nó-* ‘GNR’, *ʔá-* ‘2.Sp’) with a root with an underlying short vowel.¹

- (264) Weenhayek (Claesson 2016)
- a. *-lá?* ‘domestic animal’ → *’nó-lá?* ‘one’s domestic animal’
 - b. *-ʔuk* ‘load, bag’ → *’nó-ʔuk* ‘one’s load, bag’

¹Note that forms that arose due to Watkins’ Law (§9.1.4) do not conform to these regularities in Wichí, since the domain for accent assignment excludes any material that precedes the erstwhile third-person prefix. Consequently, prefixes such as ‘Wk *’nó-* ‘GNR’ surface with a short vowel in forms such as *’no-t-áq* ‘one’s food’.

- c. *-kⁱu?* ‘horn, club’ → *’nó-kⁱu?* ‘one’s horn, club’
- d. *-kⁱás* ‘tail’ → *’nó-kⁱás* ‘one’s tail’
- e. *-nix* ‘smell’ → *’nó-nix* ‘one’s smell’
- f. *-p’ot* ‘lid’ → *’nó-p’ot* ‘one’s lid’
- g. *-kej?* ‘hand’ → *’nó-kej?* ‘one’s hand’
- h. *-ha?* ‘price’ → *’nó-ha?* ‘one’s price’
- i. *-’wet* ‘place, home’ → *’nó-’wet* ‘one’s place, home’
- j. *-huk* ‘firewood’ → *’nó-huk* ‘one’s firewood’
- k. *?is* ‘good’ → *?á-?is* ‘you are good’
- l. *nox^w* ‘good’ → *?á-nox^w* ‘you end up’

The following examples from *’Weenhayek* instantiate the combination of a prefix with a long vowel (*’Wk ’nó-* ‘GNR’, *?á-* ‘2.Sp’) with a root with an underlying long vowel.²

- (265) *’Weenhayek* (Claesson 2016)
- a. *-mók* ‘powder’ → *’nó-mok* ‘one’s powder’
 - b. *-ts’él?* ‘belly’ → *’nó-ts’el?* ‘one’s belly’
 - c. *-qéj?* ‘custom’ → *’nó-qej?* ‘one’s custom’
 - d. *-lés* ‘children’ → *’nó-les* ‘one’s children’
 - e. *-ját* ‘breath’ → *’nó-jat* ‘one’s breath’
 - f. *-q’áx* ‘mouth’ → *’nó-q’ax* ‘one’s mouth’
 - g. *-wák* ‘rage’ → *’nó-wák* ‘one’s rage’
 - h. *-tét* ‘fire’ → *’nó-tet* ‘one’s fire’
 - i. *wúx^w* ‘big’ → *?á-wux^w* ‘you are big’
 - j. *t’úŋ* ‘hard’ → *?á-t’uŋ* ‘you are hard’
 - k. *?im* ‘swollen’ → *?á-?im* ‘you are swollen’
 - l. *’júj?* ‘sharp’ → *?á-’juj?* ‘you are sharp’
 - m. *tilúk* ‘blind’ → *?á-tiluk* ‘you are blind’

²The generalization in footnote 1 applies to roots with underlying long vowels as well: once again, the domain for accent assignment excludes anything that precedes the erstwhile third-person prefix, fossilized due to Watkins’ Law. Therefore, prefixes such as *’Wk ’nó-* ‘GNR’ surface with a short vowel in forms such as *’no-t-ás* ‘one’s son’.

4 Word-level prosody

The examples in (266) from *ʼWeenhayek* instantiate the combination of a root with a long vowel with the plural suffix *-ís*, whose vowel is underlyingly long, as seen in (29)–(32). For analogous examples from *Chorote*, see (68)–(70).

- (266) *ʼWeenhayek* (Claesson 2016)
- t-éjʔ* ‘her/his name’ → *t-éj-is* ‘their names’
 - t-úp* ‘her/his nest’ → *t-úp-is* ‘their nests’

Therefore, we conclude that PM words composed of two (or more) morphemes with underlying accent preserve only the leftmost accent in the surface realization, whereas all accents to the right are deleted: **t- + *-úʔp + *-íts* results in **t-úp-its* ‘their nests’, as opposed to **ʔwoʔj + *-íts* → **ʔwoj-íts* ‘blood.PL’, **t- + *-ʔáx + *-íts* → **t-ʔáx-íts* ‘their skins’.

4.3 Words with three or more syllables

In the surface representation of PM words composed of three or more syllables, there must be an accent, and it must fall within the first three syllables of the stem.³ There is no evidence supporting the reconstruction of trisyllabic (or longer) enclitomena. If a word is composed of morphemes with no underlying accents, a default accent is assigned to the peninitial syllable of the word. We start by discussing words with the accent falling on the postpeninitial syllable, or the third one counting from the left edge (§4.3.1), then words with the accent on the peninitial syllable (§4.3.2), and finally words with initial stress (§4.3.3).

4.3.1 ~-~

Most likely, postpeninitial accent in Proto-Mataguayan was restricted to morphologically complex words. It is reconstructed primarily based on evidence from *Iyoʔawujwaʔ* and *Manjui*, whereas *Iyojwaʔajaʔ* and *Wichí* have innovated by retracting the accent to the peninitial syllable. As a consequence of that innovation, the stress in *Iyojwaʔajaʔ* can synchronically fall on either syllable within the disyllabic – and not trisyllabic – window at the left edge of the word (Carol 2014a:

³It is theoretically possible that in some exceptional cases the stress could be moved even farther from the left edge of the stem, as in *Manjui fi-pʔilisáh* ‘I am poor’, where a trisyllabic root with a final accent receives an unaccented prefix. However, this combination is exceedingly rare, and we have been unable to identify evidence from other Mataguayan varieties that would support the antiquity of the pattern in question.

91–2).⁴ Likewise, in Weenhayek long vowels usually occur within the disyllabic window at the left edge of the word, except for instances of noun incorporation (Claesson 1994: 9) and forms that arose due to Watkins' Law (§9.1.4), such as *'no-t-áx-k'á-tax* 'one's chickenpox' or *'no-t-ex^w-ís* 'one's wings', where the domain for accent assignment excludes any material that precedes the erstwhile third-person prefix *t-* / *t'*.

Words with postpeninitial accent are most commonly composed of an unaccented prefix and a root with an underlying accent on the second syllable, as in (267)–(275). Note that the accent retraction fed the deletion of the word-final glottal stop in unaccented syllables in Wichí (cf. §9.1.1.14), whereas in Nivaçle no accent retraction occurred, and the word-final glottal stop (if present in PM) remained, as in (270), (271), (274). The preservation of the word-final glottal stop in Nivaçle contrasts with its loss in trochees, as in (180), (186), (214), (260), further described in §7.1.1.8.

- (267) PM **-ɸapáʔ* ('shoulder') > PCh **-hwopóʔ* • PW **-x^wápo*
- (268) PM **-ɸapá-keʔ* 'shoulder blade' > Ni *-ɸâpâ-ke* • PCh **-hwopó-keʔ*
- (269) PM **-ɸqató* (**-l*) 'elbow' > Ni *-(ʔV)ɸkato* (*-k*) • PCh **-qatóʔ* (**-l*) • PW **-qáto* (**-l^h*)
- (270) PM **-kiláʔ* (**-wot*) 'elder brother' > Ni *-tfekláʔ* / *tfiklá-* (*-βot*) • PCh **-kiláʔ* (**-wot*) • PW **-k'íla*
- (271) PM **-kitáʔ* (**-wot*) 'elder sister' > Ni *-tʃitaʔ* (*-βot*) • PCh **-kitáʔ* (**-wot*) • PW **-k'íta*
- (272) PM **-k'alóʔ* (**-ts*) 'cheek' > PCh **-k'alóʔ* (**-s*) • PW **-k'^jálo* (**-s*)
- (273) PM **-nX₂₃aq(')át* 'to snore' > Ni *[ta]nxakâ* • PCh **[ʔi]hnâq'át*
- (274) PM **-qaláʔ* (**-j^h*) 'leg' > Ni *-kakláʔ* (*-j*) • PCh **-qa'láʔ* ~ **-qâ'láʔ* (**-j^h*) • PW **-qálá* (**-j^h*)
- (275) PM **[ji]selán* 'to spank' > Mk *[j]<eq>silan* 'to spank' • PCh **[ʔi]selán* 'to store'; **[ʔi]selán-eh* 'to prepare'

⁴ Apparent violations of this restriction are observed in forms such as Ijw *kasts'aháne* 'we know it', *kasts'ifis* 'we are good', *ʔi'nahwél* 'you are ashamed'. This entails that when stress retraction applied in Iyojwa'aja, the first-person plural proclitic *kas=* was outside the respective domain, and that the insertion of *ʔi* in the prefixes of the shape *ʔin-* before vowels and glottal consonants had not yet occurred. The Proto-Chorote reconstructions of the aforementioned forms are as follows: PCh **kas ts-'ahán-eh* 'we know it', **kas ts-'is-ís* 'we are good', **<n>ahwél* 'you are ashamed'.

4 Word-level prosody

The same stress pattern is found when an unaccented prefix is combined with an unaccented monosyllabic root and an accented suffix, as in the plural forms in (276)–(280).

- (276) PM *-kâs-él ‘tails’ > Ni -kâʔs-ek • PW *-kʰás-el^h
 (277) PM *-koj-áj^h ‘hands, arms’ > Mk -koj-ej • PCh *-koj-áj^h
 (278) PM *-ʔlix-áj^h ‘languages, words’ > Mk -ʔlix-ej • Ni -ʔk̄lif-aj • PCh *-ʔlih-áj^h
 (279) PM *-pʔot-és[?] ~ *-pʔot-ós ‘lids’ > Ni -pʔot-os • PCh *-pʔot-és • PW *-pʔót-es
 (280) PM *-täts-él ‘trunks, bases’ > PCh *-tes-él • PW *-téts-el^h

Finally, postpeninitial accent is found when a disyllabic enclinenomenon receives a suffix with an underlying accent, as in (281).⁵

- (281) PM *qatits-él ‘stars’ > PCh *qates-él • PW *qatéts-el^h

As noted above, the postpeninitial accent pattern is reconstructed based on evidence from Iyoʼawujwaʼ and Manjui, and indirect evidence for its antiquity comes from the failure of the final ʔ to be lost in Nivaçle, as in *ji-tfitaʔ* ‘my elder sister’, *ʔa-kaklâʔ* ‘your leg’ (Seelwische 2016: 56, 103). This counters the pattern established by Gutiérrez (2015b: 182–194), whereby in unsuffixed nouns with a (possessive) person index iambic feet are normally built from the left edge of the word. Consequently, the second syllable of the root is expected to undergo de-glottalization in weak prosodic positions, as in (*finβóʔ*) ‘honey’ → (*ji-fin*)βo ‘my honey’ (Gutiérrez 2015b: 186). Although we have no information on the position of the stress in forms such as *ji-tfitaʔ* and *ʔa-kaklâʔ* in the variety of Nivaçle studied by Gutiérrez, the consistent presence of the word-final glottal stop in all inflected forms of these nouns indicates that they retain the final stress pattern of PM, quite atypically for Nivaçle: *ji-(tfitáʔ)*, *ʔa-(kaklâʔ)*. This prediction will need to be tested with native speakers of Nivaçle. At least in plurals, which in our account contain an accented suffix in PM, Nivaçle is explicitly reported to receive final stress, as in *ji-(k̄lif-áj)* ‘my words’ (Gutiérrez 2015b: 204). This fully conforms with our expectations.

⁵A few forms remain problematic for our proposal. First of all, the plural form of Mj *-(ʔi)ʔéʔn* ‘meat’ is *-ʔiʔén-is* and not **-ʔiʔén-éis*, despite the fact that its PM etymon is reconstructed as an enclinenomenon: PM **-ʔäsʔaʔn*, expected plural form ***ʔäsʔan-is*. Second, the root for ‘to stand’ behaves as iambic in Weenhayek, as seen in the imperative *ʔWk qasít* ‘stand!’, but consistently has stem-initial stress in Iyoʼawujwaʼ and Manjui, as in Mj *ti-káʔit* ‘s/he stands’. Since this is observed in only two lexemes, it is not currently possible to decide whether we are dealing with a true exception or with some sort of an additional restriction whereby the accent is retracted in inflected forms with person prefixes.

4.3.2 ~~~

Peninitial accent is the most frequent pattern in polysyllabic words. It arises whenever the initial syllable lacks an underlying accent and the peninitial syllable carries one, regardless of the properties of all subsequent syllables. In addition, it comes about as the default accent pattern in words that lack any underlying accent within the trisyllabic window at the left edge.

Peninitial accent often arises when an unaccented prefix is attached to a disyllabic or longer stem (unless the stem itself carries an underlying accent on its second syllable, on which see §4.3.1). In order to recover the underlying accentual properties of any given stem, one needs to examine its behavior in absence of prefixes. However, many verbs and relational nouns never occur without prefixes, and it is therefore not always possible to determine whether a given stem carries any underlying accent at all.

In a handful of cases, we can be fairly certain that the initial syllable of the stem carried an underlying accent. This can be seen in prefixless forms such as Ijw *lóxs'e* 'bow', *'náji* 'path', *tóxs'e* 'smoke'; I'w *f'wétis* 'root', *lóxs'e?* 'bow', *náji* 'path', *tóksa* 'smoke'; Mj *tóksa* 'smoke', *póxsena* 'bearded'; 'Wk *x'wétes* 'root', *lútsex* 'bow', *'nájix* 'path', *pásenax* 'gilded catfish', *tútsax* 'smoke', all of which show initial accent. The accent does not shift upon accretion of an unaccented prefix:

- (282) PM **(-)phétä?ts* 'root' > Mk *fitets* • Ni *-pheta?s* • PCh **-hwétus* • PW **(-)x'wétes*
- (283) PM **(-)lútse?x*, **(-)lútsxe-ts* 'bow' > Ni *k'lutsef / -k'lutse?f*, *(-)k'lutsef-s* • PCh **(-)lúseh (*-es)* • PW **(-)lútseχ*, **(-)lútse-s*
- (284) PM **(-)'náji?x*, **(-)'nájx-aj^h* 'path' > Ni *náji?f*, *(-)'nájx-aj / -'náji?f* • PCh **(-)'nájih*, **(-)'nájh-aj^h* • PW **(-)'nájiχ*, **(-)'nájh-aj^h*
- (285) PM **-pxúse?* (**-j^h*) 'beard' > Mk *-<a>pxusi?* (*-j*) • Ni *-páse (-j)* • PCh **-púse?* (**-j^h*) • PW **-páse (*-j^h)*
- (286) PM **(-)tútse(?)χ* 'smoke' > PCh **(-)túsah* • PW **(-)tútsaχ*

In yet other cases, there is evidence that the stem itself lacks an underlying accent. The stems listed below behave as enclitomena when used without a prefix: in Chorote they carry final stress (Ijw *k'ijé* 'for'; Mj *k'owéh* 'hole', *ʔijé?* 'for'), in 'Weenhayek they lack long vowels ('Wk *x'wico?* 'coal', *k'owex* 'hole', *qak'a?* 'medicine', *towex* 'pan, kind of drum'), and in Nivaçle they fail to undergo deglottalization in the stem-final position, which suggests final stress (Ni *phajxó?* 'coal', *k'utsá?x* 'old'). Note that when such stems combine with a monomoraic prefix in Nivaçle, the coda of the stem-final syllable deglottalizes, suggesting peninitial stress (Ni *ʔ-phájxo* 'its charcoal', *ji-táβaf* 'my abdominal cavity'). In (287) and

4 Word-level prosody

(292), we list the allomorphs without the deglottalization effect in Nivaçle, which occur with the prefixes *βat*- ‘indefinite possessor’ and *kas*- ‘our’.

- (287) PM *-*φájXo?* (*-l) ‘coal’ > Ni -*φajxo?* (-k) • PW *-*x^wijho* (*-l^h)
 (288) PM *-*kówä^ʔx* ‘hole’ > PCh *-*kóweh* • PW *-*k’óweχ*
 (289) PM *-*k’ója(?)* ‘before, for’ > Ni -*k’ója* • PCh *-*k’ója?* • PW *-*k^j’ója*
 (290) PM *-*k’útsa^ʔχ* ‘old’ > PCh *-*k’úsah* • PW *-*k^j’útsaχ*
 (291) PM *-*qáka* (*-l) ‘medicine’ > PCh *-*qáka?* (*-l) • PW *-*qák^ja* (*-l^h)
 (292) PM *-*táwä^ʔx*, *-*táwxä-ts* ‘(abdominal) cavity’ > Mk -*tawé^ʔx*, -*tawxe-ts* • Ni -*táβa^ʔf*, -*táβxa-s* • PCh *-*tóweh* • PW *-*tóweχ*

This strongly suggests that Proto-Mataguayan did not tolerate enclitomena of more than two syllables: if an unaccented prefix was added to a disyllabic enclitomenon, a default accent was assigned to the initial syllable of the stem (the peninitial syllable of the word). In fact, Nivaçle, Chorote, and Wichí still show synchronically active alternations in accent placement, exemplified in (293)–(296).

- (293) Nivaçle (Gutiérrez 2015b: 184, 186, 211–212, 272)
 a. *samúk* ‘excrement’ → *ji-sámuk* ‘my excrement’
 b. *kílesá* ‘knife’ → *ji-kílésa* ‘my knife’
 c. *finβó?* ‘honey’ → *ji-sínβo* ‘my honey’
 d. *jiksú^ʔk* ‘silk floss tree’ → *?a-β-íktsuk* ‘your canoe (made of the wood of a silk floss tree)’
 e. *tíló^ʔx* ‘s/he carries it on her/his shoulders’ → *xa-tíłox* ‘I carry it on my shoulders’
 f. *βáklé^ʔtf* ‘s/he walks’ → *xa-βáklétf* ‘I walk’
 g. *βámká?* ‘s/he washes’ → *xa-βá^ʔmka* ‘I wash’
 h. *φajxó?* ‘charcoal’ → *‡-φájxo* ‘its charcoal’
- (294) Iyojwa’aja’ (Carol 2014a: 92)
 a. *k’ijé* ‘for’ → *si-k^j’óje* ‘for us’
 b. *?apé?e* ‘above’ → *si-típe?e* ‘above us’
 c. *k’ahwéh* ‘below’ → *si-k^j’áhwe* ‘below us’
- (295) Manjui (Carol 2018, Hunt 1994)

4.3 Words with three or more syllables

- a. *?ijé?* ‘for’ → *hi-?íóje?* ‘for her/him’
 b. *?apé?ε?* ‘above’ → *hi-tépe?e?* ‘on top of it’
 c. *kihwíjh* ‘below’ → *fi-kéihwi* ‘below us’
- (296) ‘Weenhayek (Claesson 2016: 65, 85, 94, 124, 173, 306, 317, 420, 472)
- a. *towex* ‘pan; kind of drum’ → *la-tówex* ‘its hole’
 b. *k’owex* ‘hole’ → *la-k’ówex* ‘its center’
 c. *qawaq* ‘belt’ → *la-qáwaq* ‘its belt’
 d. *x^{wi}íço?* ‘coal’ → *la-x^{wi}íço?* ‘its coal’
 e. *qak’a?* ‘medicine’ → *la-qák’a?* ‘its medicine’

In a great number of disyllabic stems, it is impossible to determine whether their initial syllable carries an underlying accent or not, since these stems never occur without a prefix. Some examples are shown below. Note the loss of the word-final glottal stop in an unaccented syllable in Nivaçle and Wichí in (301), (304), (307), (311), (315), (318), (325), as described in §7.1.1.8 and §9.1.1.14.

- (297) PM **-fáji’x* ‘right’ > Mk *-feji’x* ‘left’ • Ni *-faji’f* • PCh **-hwíjah*
- (298) PM **-fá-’mat* ‘disease’ > Mk *<eq>fe-’met* • Ni *-fá-’mat* • PCh **-hwá-’mat*
- (299) PM **[?i]fá(t)s’un* ‘to spit’ > PCh **[?i]hwáts’un-APPL* • PW **[?i]xwáts’un*
- (300) PM **-fálits* ‘daughter-in-law, sister-in-law’ > Mk *-felits* • Ni *-faklís<?a>* ‘sister-in-law’ • PCh **-hwélis* ‘daughter-in-law’
- (301) PM **-fál?u?* (**-ts*) ‘son-in-law, brother-in-law’ > Mk *-felu?* (*-ts*) • Ni *-fakl?u* (*-s*) ‘brother-in-law’ • PCh **-hwílu?* [?] *-hwélu?* (**-s*) ‘son-in-law’
- (302) PM **-fítä(°)k* ‘dream’ > PCh **-hwíhlek* • PW **-xwíteq*
- (303) PM **-fítan* ‘to dream’ > PCh **[?i]hwíhlan* • PW **[t]xwítan*
- (304) PM **(-)háqke?* ‘well’ > Mk *haqqi?* ‘river’ • Ni *-xáke* ‘dry well’ • PCh **-hááke?* ‘artificial well’
- (305) PM **-kéjá(?)* (f.), **-kéjâts* (m.), **-ké(j)tsâ-ts* (pl.) ‘grandchild’ > PCh **-kéjá?*, **-kéjâs*, **-kétsâs* • PW **-k’éjâ*, **-k’jéjâs*, **-k’étsâs*
- (306) PM **-kíφah*, **-kíφa-ts* ‘neighbor’ > Mk *-kife* (*-ts*) • Ni *-tφiφa* (*-s*) • PCh **-kíhwah*, **-kíhwa-s*
- (307) PM **-k’áxe?* (**-l*) ‘arrow’ > Mk *-qaxi?* (*-l*) • Ni *-k’áxe* • PCh **-k’áhe?* (**-l*) • PW **-k’áhe* (**-l^h*)
- (308) PM **-k’álφah* ‘spouse’ > Ni *-t^ʔakφa* • PCh **-k’élhwah* • PW **-k’éx^{wah}*

4 Word-level prosody

- (309) PM **[ji]k'ásaʔχ* ~ **[ji]k'áseʔχ* 'to divide' > Mk *[j]<a>k'esaʔχ* • PCh **[ʔi]k'ésah* • PW **[hi]k'ésaχ*
- (310) PM **-k'ínix*, **-k'ínixi-ts* 'younger brother' > Mk *-k'ínix* • Ni *-tʃinif* • PCh **-k'ínih*, **-k'íhni-s* • PW **-k'íniχ*, **-k'íhni-s*
- (311) PM **-k'ínxãʔ* [?] **-k'ínxãʔ* (**-wot*) 'younger sister' > Mk *-k'ínxãʔ* [?] *-k'ínxãʔ* • Ni *-tʃinxã* (*-βot*) • PCh **-k'íhnãʔ* (**-wot*) • PW **-k'ínhã*
- (312) PM **[ji]nxi'wän* 'to smell' > Mk *[ji]nxi'wen* • PCh **[ʔi]hni'wen*
- (313) PM **-pák'o* 'heel' > PCh **-pók'oʔ* • PW **-pák'jo*
- (314) PM **-pás-e't* 'lip' > Ni *-pás<e't>* • PCh **-pás<at>* ~ **-pás<ât>* • PW **-pás<et>*
- (315) PM **[ji]pé'j-aʔ* 'to hear' > Mk *[ji]pi'j-eʔ* • Ni *[ji]pe'j-a* • PCh **[ʔi]pé'j-aʔ*
- (316) PM **[t]póʔ-ex* 'to be full' > Mk *[to]poʔ-ox* • Ni *[to]poʔ-x* • PCh **[tʰ]pó-eh* • PW **[t]pó-jex*
- (317) PM **[ji]pónit-ex* 'to fill' > Mk *[j]<o>pon-het-ix* • Ni *[ji]pont-ef* • PCh **[ʔi]pónit-eh* • PW **[ʔi]tá-ponit-ex*
- (318) PM **[ji]qákuʔ* 'to distrust' > Mk *[je]qekuʔ* • Ni *[ji]kaku* • PCh **[ji]qákuʔ* • PW **[ji]qák'ju-APPL*
- (319) PM **-qáwa(°)q* 'belt, band' > PCh **-qáwak* • PW **-qáwaq*
- (320) PM **-qáʔtu(ʔ)* 'yellow' > PCh **-qáʔtuʔ* • PW **qáʔtu*
- (321) PM **[t]qánhan* 'to fish with a hook' > Mk *[ta]<qa>qanhen* • PCh **[tʰ]qánhan* • PW **[t]qánhan*
- (322) PM **-qótso(ʔ)* 'node' > PCh **-qóso-keʔ* • PW **-qótso*
- (323) PM **-támteʔ* (**-ts*) 'daughter-in-law' > Ni *-támte<ʔe>* (*-s*) • PCh **-támteʔ* (**-s*)
- (324) PM **[ni]-táφä(°)l-APPL* 'to know, to be acquainted' > Ni *[ni]táφakl-APPL* • PCh **[ʔi]táhwel-APPL* • PW **-táx^wel-APPL* / **-táx^wnh-APPL*
- (325) PM **-tátseʔ* (**-j^h*) 'eyelash' > Mk *-tetsiʔ(-j)* • Ni *-tátse(-j)* • PCh **-táseʔ* (**-j^h*)
- (326) PM **-témä(°)k* ~ **-támä(°)k*, **-témh-aj^h* ~ **-támh-aj^h* 'bile' > PCh **-témeq*, **-témh-aj^h* • PW **-témeq*, **-témh-aj^h*
- (327) PM **-t'íleʔ* (**-j^h*) 'rheum' > Mk *-t'iliʔ(-j)* • Ni *-t'íkle(-j)* • PCh **-t'íle-*
- (328) PM **-tséwte(ʔ)* (**-j^h*) 'tooth' > Ni *-tseβte(-j)* • PW **-tsóte* (**-j^h*)
- (329) PM **-ʔwóle(ʔ)* 'leaf, hair, feather' > PCh **-ʔwóleʔ* • PW **-ʔwóle*

4.3 Words with three or more syllables

- (330) PM *-xájk'u(?) (*-l) 'egg' > Ni -fajk'u (-k) • PCh 3 *hl-éjk'u? (*-l) • PW *-t-ík^j'u (*-l^h)
- (331) PM *-xáte^hk, *-xáthe-j^h 'head' > Ni -fate^htʃ, -fatxe-s • PCh *-hétek, *-héhte-j^h • PW *-t-éteq, *-t-éthe-j^h
- (332) PM *-X₁₃úsek ~ *-X₁₃úsäk 'temperance' > PCh *-húsek • PW *-húseq

Peninitial accent also occurs when an unaccented prefix is attached to an accented monosyllabic stem followed by a suffix (either accented or not).

- (333) PM *[ji]ká^ht-APPL 'to fall' > Ni [ji]ká^ht-APPL • PW *[ni]k^ját-APPL
- (334) PM *[t]kú^hm-APPL 'to grab; to work' > Mk [te]ku^hm-APPL • Ni [t'a]ku^hm-APPL • PCh *[ʔi]kúm-APPL • PW *[t]k'ú(?)m-APPL
- (335) PM *-kút-ex 'to meet' > Mk [w(e)]kut-ix-u^hʔ • Ni [βa]kut-ef • PCh *[ʔi]kút-eh • PW *-k'út-eχ
- (336) PM *[ji]p'ó-APPL ~ *[ji]ϕ'ó-APPL 'to cover' > Ni [ji]p'ó-APPL • PCh *[ʔi]p'ó-APPL • PW *[hi]p'ó-APPL
- (337) PM *-qéj-its 'customs' > Ni -kej-is • PCh *-qéj-is • PW *-qéj-is
- (338) PM *-^hwój-its 'blood.PL' > PCh *(-)^hwój-is • PW *-^hwój-is
- (339) PM *[ji]X₁₃án-ex 'to know' > PCh *<[j]a>hán-eh • PW *[ji]hán-eχ

A combination of an (unprefixed) iambic root and a suffix is also expected to result in peninitial accent. Note that the Chorote reflex in (342) is reconstructed based on the Iyo'awujwa' reflex *itán-is*, attested in Gerzenstein (1983: 132), whereas Manjui shows an irregular rightward stress shift: *ʔiten-éis* 'thorns'. The Iyo'awujwa' datum is considered more conservative because it fits better with the rest of the comparative data.

- (340) PM *φα^háj-u^hk, *φα^háj-ku-j^h 'algarrobo tree (*Prosopis alba*)' > Ni φα^háj-<j>uk • PCh *hwa^háj-uk, *hwa^háj-ku-j^h • PW *x^wa^háj-uk, *x^wa^há-k^ju-j^h
- (341) PM *jinát-its 'water.PL' > Ni jinát-is • PCh *ʔi^hnát-es • PW *ʔinát-es
- (342) PM *k'utX₂₃án-its 'thorns' > Ni k'utxan-is • PCh *k'után-is • PW *k^j'uthán-is
- (343) PM *tsáháq-its 'chajá birds' > Mk tsahaq-its • PCh *sáháq-es[?] ~ *sáháq-is

Finally, peninitial stress is found in a number of unprefixed trisyllabic roots. It is preserved in all derivatives and inflected forms.

4 Word-level prosody

- (344) PM **silóʔtâϕV*[?] ~ **siwóʔtâϕe* ‘Caatinga puffbird’ > PCh **silóʔtâhwVʔ* • PW **siwótâx^we*
- (345) PM **xunxátaχ* ‘tusca fruit’ > Mk *xunxetaχ* • Ni *xunfataχ* • PCh **?ihnátah* • PW **?nhátax*
- (346) PM **xunxáta-(ju)ʔk* ‘tusca tree’ > Mk *xunxete-ʔk* • Ni *xunfata-juk* • PCh **?ihnáta-k* • PW **?nháte-q*
- (347) PM **xunxáta-kat* ‘tusca grove’ > Mk *xunxete-ket* • Ni *xunfata-tfat* • PCh **?ihnáta-kat*
- (348) PM *(?*a*)*X₁₃útsa(ʔ)χ*, *(?*a*)*X₁₃útsha-ts* ‘crested caracara’ > Ni *xutsax*, *xutsxa-s* • PCh *(?*a*)*húsah*, *(?*a*)*húsa-s* • PW **?ahútsaχ*, **?ahútsha-s*
- (349) PM **?aqájeʔk* ‘wild honey’ > Ni *?akâjetf* • PW **?aqájeç*
- (350) PM **?aX₁₃ájje(ʔ)χ* ‘mistol fruit’ > Ni *?axâjex* • PCh **?ahájah* • PW **?ahájax*
- (351) PM **?aX₁₃áj-uʔk*, **?aX₁₃áj-ku-j^h* ‘mistol tree’ > Ni *?axâj-uk*, *?axâj-ku-j* • PCh **?aháj-uk*, **?aháj-ku-j^h* • PW **?aháj-uk^w*
- (352) PM **?âsk’ála(ʔ)χ* ‘widower’ > Ni *?âstf’aklax* • PCh **?âsk’élah*
- (353) PM **?uwáte(ʔ)χ*[?] ~ **C’uwáte(ʔ)χ* ‘puma’ > Ni <*xum*>*p’uβatex* • PCh **k’uwáhlah* • PW **?owátax*[?] ~ **C’owátax*
- (354) PM **?Vlâʔah*, **?Vlâʔa-ts* ‘lesser grison’ > Mk *ile* • Ni *?aklâʔa (-s)* • PCh **?elâʔah*, **?elâʔa-s*[?] ~ **?alâʔah*, **?alâʔa-s* • PW **?ilâʔah*

4.3.3 ^{~~}

Initial accent in polysyllabic words occurs whenever the initial syllable is lexically specified as accented. This is especially common in roots. In such cases, Chorote retains initial accent, and Weenhayek has a long vowel in the initial syllable and short vowels in all other syllables.⁶ The peninitial vowel is sometimes syncopated in Wichí and less commonly in other languages, as in (355), (362), (368), (373), (376), (377).

⁶The position of stress in the Nivaçle reflexes of the words of this type is not documented in Gutiérrez (2015b). Since the language requires a primary stress within a disyllabic window at the right edge of a prosodic word, we predict that PM polysyllabic words with initial stress are reflected with a final (default) stress in Nivaçle, as described for trisyllabic nouns by Gutiérrez (2015b: 165). Analía Gutiérrez (2023, personal communication) reports that our prediction is in fact borne out for many of these forms, though not all of them are documented in her corpus, with the proviso that the examples with an initial heavy (CVC) syllable carry a secondary initial stress (Gutiérrez 2019b: 34, 55).

4.3 Words with three or more syllables

- (355) PM **kéłχa-ju*^ʔ*k*, **kéłχa-jku-j*^h ‘red quebracho’ > Mk *kełe-jku-* • Ni *tfełxa-juk*, *tfełxa-ku-j* • PCh **kéhla-juk* / **kéhla-jku-* • PW **k’ét-juk*^w, **k’ét-k’u-j*^h
- (356) PM **lātseni*(?) ‘chañar fruit’ > PCh **létseni*? • PW **létse’nih*
- (357) PM **lātsen-u*^ʔ*k* ‘chañar plant’ > Mk <*xu*>*letsin-u*^ʔ*k* • PCh **léseni-k* • PW **létsen-uk*^w
- (358) PM **lóta-(ju)*^ʔ*k* ‘tree for making bows’ > Ni *kłota*<*tf*> • PCh **lóta-juk* • PW **lôte*<*q*>
- (359) PM *^ʔ*lājX₂₃VnāX₁₃ā* ‘Azara’s night monkey’ > Ni *kłajxenāxā* • PCh *^ʔ*léhjanāhā-ke*?
- (360) PM **pxúse-na*^ʔ*χ* ‘bearded; gilded catfish’ > Ni *pāse*<*nxa*> ‘gilded catfish’ • PCh **púse*<*nah*>, **púse*<*hna*>-*s* ‘bearded’ • PW **pásenaχ*, **pásenha-s* ‘gilded catfish’
- (361) PM *^ʔ[*j*]*éjxâts-han* ‘to teach’ > Mk [*j*]*ixats*<*hen*> • Ni [*j*]*ejxats-xan* / -*ʔejxats-xan* • PCh *^ʔ[*j*]*éjáhâs*<*an*>
- (362) PM **tsóφα-taχ* ‘fruit of a shrub (*Lycium americanum*)’ > Mk *tsofe-taχ* • Ni *tsoφ-tax*
- (363) PM **tsóφα-ta-(ju)*^ʔ*k* ‘shrub (*Lycium americanum*)’ > Mk *tsofe-te-k* • Ni *tsoφ-ta-juk* • PW **tsóx^wa-t-uk*^w
- (364) PM **wák’a-ju*^ʔ*k*, **wák’a-jku-j*^h ‘guayacán’ > Mk *wek’e-ju*^ʔ*k*, *wek’e-jkw-i* • PCh **wák’a-juk*, **wák’a-jku-j*^h • PW **wák^j’a-juk*^w, **wák^j’a-k’u-j*^h
- (365) PM **wósitseχ* ‘black algarrobo fruit (*Prosopis nigra*)’ > Mk *ositsaχ* • Ni *βaitsex* • PW **wósotsaχ*
- (366) PM **wósits-u*^ʔ*k* ‘black algarrobo tree (*Prosopis nigra*)’ > Mk *osits-u*^ʔ*k* • Ni *βaitse-juk* • PCh **wósis-uk* • PW **wósots-uk*^w
- (367) PM **wósak*^ʔ*V*(?)*t* ‘red-crested cardinal’ > PCh **wós^ʔk’at* • PW **wósak^j’it*
~ **wósak^j’ut*
- (368) PM *^ʔ*wánXāłāχ*, *^ʔ*wánXāłā-ts* ‘rhea’ > Mk *waatāχ* • Ni *βānxāłāχ*, *βānxāłā-s* • PCh *^ʔ*wánhlāh*, *^ʔ*wánhlā-s* • PW **wá^ʔnłāχ*, **wá^ʔnłā-s*
- (369) PM **xéłā-ju*^ʔ*k* ‘tree sp.’ > Ni *feklā-juk* • PCh **hél-ek* • PW **hél-ek*^w
- (370) PM **łátu-taχ*, **łátu-ta-ts* ‘iguana’ > Ni *łātu-taχ*, *łātu-ta-s* • PCh **łáhlu-tah*, **łáhlu-ta-s* • PW **łátu-taχ*, **łátu-ta-s*
- (371) PM **łáwu*(C)*tseχ* ‘peccary’ > Ni *łabuktsex* ~ *łaboktsex* • PCh **łáwusah* • PW **łáwutsaχ*

4 Word-level prosody

- (372) PM *ʔál(V)tse(ʔ)χ, *ʔál(V)tse-ts ‘cháguar (*Deinacanthon urbanianum*)’ > Ni ʔáktsex, ʔáktse-s • PCh *ʔálʔsah, *ʔálʔse-s • PW *ʔáletsax
- (373) PM *ʔánhajeχ ‘wild bean (*Capparis retusa*)’ > Mk anhejaχ • Ni ʔánxajex • PCh *ʔóhnajah • PW *ʔánhjaχ
- (374) PM *ʔánitih ‘wasp sp.’ > Ni ʔániti • PCh *ʔánitih
- (375) PM *ʔ[j]éjxâts-han ‘to teach’ > Mk [j]ixats<hen> • Ni [j]ejxats-xan / -ʔejxats-xan • PCh *ʔ[j]éjáhâs<an>
- (376) PM *ʔ[j]ópʔale(?) ‘to hiccup’ > Ni [j]opʔakle / -ʔopʔakle ‘to choke’ • PCh *ʔ[j]ópʔale? • PW *ʔ[j]ópʔle
- (377) PM *t-ʔó thale(?) ~ *t-ʔó thále(?) ‘heart’ > PCh *t-ʔóhtale? ~ *t-ʔóhtále? • PW *t-ʔótle

At present, we have found no evidence for reconstructing accented prefixes for Proto-Mataguayan, though prefixes with an underlying long vowel do exist in ʔWeenhayek (for example, ʔWk ʔnó- ‘GNR’, ʔá- ‘2.Sp’). In this language, such prefixes always keep their long vowel and shorten all subsequent vowels in a given phonological word (except in innovative forms that arose due to Watkins’ Law and that are therefore not reconstructible to Proto-Mataguayan), regardless of whether the stem is underlyingly unaccented, as in (378a)–(378d), trochaic, as in (378e)–(378h), or iambic, as in (378i)–(378k).

- (378) ʔWeenhayek (Claesson 2016)
- a. kʰowex ‘hole’ → ʔnó-kʰowex ‘one’s center’
 - b. xʷiçɔʔ ‘coal’ → ʔnó-xʷiçɔʔ ‘one’s coal’
 - c. qakʰaʔ ‘medicine’ → ʔnó-qakʰaʔ ‘one’s medicine’
 - d. tʰalâk ‘old’ → ʔá-tʰalâk ‘you are old’
 - e. ʔnájix ‘path’ → ʔnó-ʔnájix ‘one’s path’
 - f. xʷétes ‘root’ → ʔnó-xʷétes ‘one’s root’
 - g. tútsax ‘smoke’ → ʔnó-tútsax ‘one’s smoke’
 - h. kʰóçet ‘heavy’ → ʔá-kʰóçet ‘you are heavy’
 - i. xʷiʔjét ‘cold’ → ʔnó-xʷiʔjet ‘one’s cold’
 - j. ʔwoj-ís ‘blood’ → ʔnó-ʔwoj-is ‘one’s blood’
 - k. pitáx ‘long, tall’ → ʔá-pitax ‘you are tall’

One can therefore conclude that if Proto-Mataguayan had prefixes with an underlying accent, the accent of the prefix most likely overrode any underlying accents located further to the right.

4.4 Conclusions

We have seen that the position of stress in Chorote and the distribution of long vowels in 'Weenhayek can be rather neatly explained by positing word-level accent for Proto-Mataguayan. Nivaçle and Lower Bermejeño Wichí also show traces of an erstwhile word-level accent, whereby word-final glottal stops are lost if there is an accent in a non-final syllable (this deglottalization process is fed by accent retraction in Wichí, but not in Nivaçle). It is quite likely that some of the reconstructed PM patterns actually survive in some varieties of Nivaçle, a topic worthy of further research.

We have also seen that the position of the word-level accent in Proto-Mataguayan can be determined by examining the underlying accentual properties of individual morphemes. Any morpheme can have or lack an underlying accent. The leftmost underlying accent is the one that appears in the surface realization, whereas all subsequent accents are deleted. If no morpheme in a given mono- or disyllabic word contains an underlying accent, the entire word surfaces as unaccented. Longer words cannot surface as unaccented, and if all morphemes in a given polysyllabic word are specified as unaccented, a default accent is inserted in the peninitial syllable.

The derivation of the surface accent in PM from the underlying accentual properties of its morphemes, as well as the reflexes of the PM accentual patterns in the contemporary languages, are shown in Table 4.1.

Table 4.1: PM accent patterns and their reflexes

| PM (underlying) | PM (surface) | Ni | I'w/Mj | Ijw | 'Wk | LB |
|-----------------------|--------------|------------------|--------|-----|-----|--------|
| ˘ | ˘ | - | - | - | ˘ | |
| - | - | - | - | - | - | |
| ˘˘ | ˘˘ | ˘˘ | ˘˘ | ˘˘ | ˘˘ | |
| ˘˘ | ˘˘ | ˘˘ | ˘˘ | ˘˘ | ˘˘ | |
| ˘˘ / ˘˘ | ˘˘ | ˘˘ (-ʔ → ∅) ~ ˘˘ | ˘˘ | ˘˘ | ˘˘ | -ʔ → ∅ |
| ˘˘˘ | ˘˘˘ | ˘˘˘ (?) | ˘˘˘ | ˘˘˘ | ˘˘˘ | -ʔ → ∅ |
| ˘˘˘ / ˘˘˘ / ˘˘˘ | ˘˘˘ | ˘˘˘ (-ʔ → ∅) | ˘˘˘ | ˘˘˘ | ˘˘˘ | -ʔ → ∅ |
| ˘˘˘ / ˘˘˘ / ˘˘˘ / ˘˘˘ | ˘˘˘ | ˘˘˘ (?) | ˘˘˘ | ˘˘˘ | ˘˘˘ | -ʔ → ∅ |

The pattern whereby the surface accent (ictus) placement is determined based on the underlying accentual properties of individual morphemes by means of a rule (or a set of rules) is by no means exclusive to Mataguayan. Similar systems, where morphemes are underlyingly specified as dominant (underlyingly

4 *Word-level prosody*

accented) or recessive (lacking an underlying accent) – among other possibilities, such as preaccenting or postaccenting – are documented in a diverse set of languages, including the Uto-Aztecan languages Cupeño (Hill & Hill 2006, Alderete 1999) and Choguita Rarámuri (Caballero 2011, Caballero & Carroll 2015); the Salishan language Nleʔkepmxcín (also known as Thompson) and other closely related languages (Thompson & Thompson 1992, Coelho 2002); the Saharan language Dazaga (Dybo 1995); the Northwest Caucasian languages Abkhaz, Abaza, and Ubykh (Spruit 1985, Dybo 2000, Borise 2021); the Macro-Jê language Chiquitano (Nikulín 2022); and are possibly best known from a number of Indo-European languages (Kiparsky & Halle 1977), particularly those of the Balto-Slavic branch (Lithuanian, Old Prussian, Slovincian, Slovene, Bosnian–Croatian–Serbian, Bulgarian, Ukrainian, Belarusian, Russian, and some Rusyn dialects), as analyzed by a number of authors (Zaliznjak 1985, Melvold 1989, Dybo 2000, Kushnir 2019). Proto-Mataguayan is similar to languages such as Dazaga and Old Russian in that the stress falls on the leftmost underlyingly accented mora, overriding all subsequent underlying accents (unlike in Chiquitano, where the rule operates from right to left, or in Abkhaz, where the final accent in the leftmost sequence of accented morphemes makes it to the surface). However, it differs from these languages in that enclitomena (words where all morphemes are underlyingly unaccented) do not receive a default initial stress, but rather acquire a default peninitial accent in polysyllabic words (and, in Chorote and Nivačle, also in disyllabic ones), like in Choguita Rarámuri. This combination of features makes Mataguayan particularly interesting from a cross-linguistic perspective.

5 Phonotactics and processes

This short chapter presents an overview of the Proto-Mataguayan phonotactics and of the most important phonological processes that occurred synchronically in the protolanguage. The processes discussed in this chapter quite likely result from sound changes that took place before the disintegration of Proto-Mataguayan. Internal reconstruction of pre-Proto-Mataguayan remains beyond the scope of this book (see Campbell & Grondona 2007 for an early attempt).

5.1 Phonotactics

This section surveys the restrictions on Proto-Mataguayan onsets (§5.1.1), codas (§5.1.2), and nuclei (§5.1.3). It does not take into account syllables composed of a single syllabic coronal consonant, such as **ʎ*, **ŋ*, **ʎ*; these are discussed in §2.6.

5.1.1 Onsets

Onsets are obligatory in most Mataguayan languages, including Nivaçle (Gutiérrez 2016a: 5), Iyojwa'aja' (Carol 2014a: 90), 'Weenhayek (Claesson 1994: 3), and Lower Bermejeño Wichí (Nercesian 2014: 97). This was also the case in Proto-Mataguayan. As discussed in §2.1.6, some roots can start with a vowel in Proto-Mataguayan, but a glottal stop is inserted before that vowel unless the root takes a consonant-final prefix. For example, the root PM **-éj* 'name' starts with a vowel, as seen in its inflected forms such as **j-éj* 'my name' or **ʎ-éj* 'her/his name', but when it combines with the zero allomorph of the second-person prefix, the outcome is **∅-ʎéj* 'your name', with an inserted **ʎ*. At the stem–suffix boundary, the hiatus-avoiding strategies are more diverse. Some suffixes simply lose their initial vowel following a vowel-final stem (compare PM **ji-koj-áj^h* 'my hands' and **ji-lá-j^h* 'my domestic animals'). For other suffixes, it is more difficult to ascertain their PM allomorphy pattern, because the behavior of their reflexes differs across Mataguayan. For example, the form provisionally reconstructed as PM **[t]póʎ-ex* 'it is full', where the applicative suffix is added to a vowel-final stem, is reflected as Mk *[to]póʎ-ox*, Ni *[ta]póʎ-x*, Ijw *[ti]pó-ji*, Mj *[ta]pó-we*, and PW *[t]pó-jeχ*, with full translaryngeal assimilation in Maká, suffix vowel loss in Nivaçle, *j*-epenthesis in

Iyojwa'aja' and Wichí, and *w*-epenthesis in Manjui (and Iyo'awujwa'). The reconstruction of the allomorphy patterns of such suffixes awaits further research.

A number of complex onsets can be reconstructed for Proto-Mataguayan, with the onset patterns being quite permissive. Possible combinations include sequences of a fricative and a stop (**ɸk*, **ɸts*, **sk*, **st*, **Xp*); a fricative and a sonorant (**sl*, **s'w*, **xn*, **Xw*); a stop and a sonorant (**tl*); a stop and a fricative (**kɸ*, **kh*, **ph*, **px*); a sonorant and a stop (**lk*); two sonorants (**nj*); a fricative, a stop, and a sonorant (**stw*). For Proto-Chorote–Wichí, sequences of two stops are also reconstructed (**kp*, **kt*, **tk*). This list is probably not exhaustive.

Other consonant clusters occurred word-internally in Proto-Mataguayan, but it is difficult to determine whether they were tautosyllabic or heterosyllabic. It is often the case that Chorote and Wichí show a tautosyllabic reflex of a given cluster, as in PM **k'utX₂₃á'n* > PW **k^ju.thá'n* 'thorn'; PM **-ʔaqhu'ts* ~ **-ʔaqhú'ts* > PCh **-ʔa.qús* 'knee'. The Nivaçle reflexes of such clusters are heterosyllabic, as in Ni *k'ut.xa'n* 'thorn' (Gutiérrez 2015b: 124); this is also the case in Maká at least for the clusters of the shape *Ch*, as in Mk *wi.taq.huts* 'one's knee' (Gerzenstein 1989: 21, fn. 3).¹ We are inclined to think that some or all of these clusters were originally tautosyllabic, as suggested by the fact that they commonly occur morpheme-initially and word-initially; the Nivaçle and Maká syllabification would then be innovative. The issue requires further research.

5.1.2 Codas

Any plain (non-glottalized) consonant, with the possible exception of **w*,² could occur as a simplex coda, though some codas are quite rare word-internally (**ʔ* occurred in very few words, such as **-qáʔtu(?)* 'yellow', and the coda **h* was likely banned word-internally altogether). The coda PM **q* is reconstructed only following low vowels (PM **a* or *á*), whereas the coda PM **k* seems to have been ruled out following PM **a*.

Complex codas are not allowed in any Mataguayan language, including Maká (Gerzenstein 1989: 58), Nivaçle (Gutiérrez 2016a: 5), Iyojwa'aja' (Carol 2014a: 90), 'Weenhayek (Claesson 1994: 3), and Lower Bermejeño Wichí (Nercesian 2014: 98), with two exceptions involving glottal consonants. First of all, Nivaçle has

¹Based on the cognates in Nivaçle and Chorote, we suspect that the Maká form given by Gerzenstein (1989: 21, fn. 3) is a mistranscription for *wi.t'aq.hu'ts*. See Chapter 10 for details.

²PM **w* is reconstructed root-finally in PM **[t]k'áw-APPL* 'to hold in one's arms, to hug' and **-á'w-APPL* 'to be', but these roots are typically followed by applicative suffixes, meaning that their final consonants may have been often syllabified as parts of onsets of the subsequent syllable.

preglottalized codas, analyzed as sequences of the type */ʔC/ in Gutiérrez (2015b, 2016c).³ As discussed in §2.3, some of these correspond to glottalized codas in Manjui and Wichí, where at least Claesson (1994) analyzes them as underlying sequences of a sonorant and a glottal stop. We reconstruct preglottalized codas to Proto-Mataguayan and follow Gutiérrez (2015b, 2016c) in analyzing them as underlying sequences of the type */ʔC/, though we chose to represent them as *ʔC for aesthetic reasons. Another type of complex coda, which occurs only before a pause, involves sequences of a non-nasal sonorant (PM *j or *w) and a *h, represented as *j^h and *l^h in this book. These are best preserved in Chorote, where Carol (2014a: 88) analyzes them as sequences of a sonorant and a so-called “unstable /h/” (at least in the Iyojwa’aja’ variety, “unstable /h/” can also follow nasal sonorants, though such possibility is not reconstructed for PM). Synchronically, the “unstable /h/” in Carol’s (2014a) terminology is a kind of /h/ that is deleted word-medially, and in Chorote it may occur both as a part of a complex coda and as a simplex coda, as in *máh* / *má-* ‘go!’. We also reconstruct *j^h and *l^h for Proto-Wichí (note that PW *l^h continues both PM *l and *l^h word-finally), which are reflected as voiceless consonants ç, ʈ in some Wichí varieties and as voiced *j*, *l* in others (§9.2.1.7).

Glottalized stops cannot ever be followed by a consonant or pause at the surface in any Mataguayan language, including Maká (Gerzenstein 1989: 58) and Lower Bermejeño Wichí (Nercesian 2014: 98). In Nivaçle, however, a first stop in a consonant cluster may receive underlying specification as [constricted glottis], which surfaces as creaky voice in the preceding vowel (1).

- (1) Nivaçle (Gutiérrez 2016a: 6)
- a. -kâts'ex [-qɑ'ts'ex]
-diarrhea
'diarrhea'
 - b. -kâʔtsxe-nax [-,qɑtsxe'nax]
-diarrhea-RES
'person that has diarrhea'

We assume that Proto-Mataguayan behaved just like Nivaçle in this regard. If an underlying glottalized stop came to occur before a consonant, it apparently no longer surfaced as ejective but rather as preglottalized (see §5.2.6 for more

³In fact, Gutiérrez (2015b, 2016c) provides evidence that /ʔ/ is parsed as belonging to the nucleus in the rhymes of the type /VʔC/ in Nivaçle.

details). Underlying glottalized consonants are not reconstructed in the word-final position, where preglottalized codas can be found instead. We are not aware of any evidence that would suggest that glottalized onsets and preglottalized codas are related in any way.

5.1.3 Nuclei

The nucleus position in Proto-Mataguayan was filled by any of its seven vowels, though we have not found evidence for reconstructing the vowel **ä* word-finally (or preceding a word-final **h*). In addition, as described in §2.6, coronal consonants (at least **ł*, **n* and **t*) could occur as nuclei, as most clearly seen in preconsonantal allomorphs of certain prefixes.

5.2 Consonantal and vocalic stems

A very important feature of the morphophonology of the Mataguayan languages is the fact that consonant-final stems may suffer changes if a morpheme is added to their right. These alternations most characteristically occur in plural formation and in compounding, but not with other types of affixes, such as applicatives. In what follows, we use the labels CONSONANTAL STEM for the allomorph that shows up if no suffix is present and VOCALIC STEM for the allomorph that shows up before certain suffixes. The alternation patterns are summarized in Table 5.1. Note that only guttural (that is, velar, uvular, or glottal) stem-final consonants are subject to alternations other than metathesis, such as truncation or weakening, an observation we owe to an anonymous reviewer of this book.

Furthermore, multiple plural suffixes have two allomorphs, one that starts with a vowel and combines with consonantal stems, and another one that starts with a consonant and combines with vocalic stems.

- (2) PM **-(á)j^h* ‘PL’ > Mk *-(e)j* • Ni *-(a)j* • PCh **-(á)j^h* • PW **-(á)j^h*
- (3) PM **-(é)l* ‘PL’ > Mk *-l* • Ni *-(e)k* • PCh **-(é)l* • PW **-(é)l^h*
- (4) PM **-(i)ts* ‘PL’ > Mk *-(i)ts* • Ni *-(i)s* • PCh **-(i)s* • PW **-(i)s*

5.2.1 Glottal truncation in suffixation

PM **ʔ*- and **h*-final stems always form their vowel stems by deleting the glottal consonant altogether. Similar rules have been explicitly described for Maká by Gerzenstein (1989: 70–71) and for Niva’le by Gutiérrez (2015b: 271–272) and Gutiérrez (2020: 285).

Table 5.1: Consonantal and vocalic stems

| subsection | consonantal stem | vocalic stem |
|------------|-----------------------------------|--|
| §5.2.1 | *-CV? | *-CV- |
| §5.2.1 | *-CVh | *-CV- |
| §5.2.2 | *-CVχ | *-CV- |
| §5.2.2 | *-CVχ | *-ChV- |
| §5.2.3 | *-CVk | *-ChV- |
| §5.2.4 | *-FVk | *-FV- |
| §5.2.5 | *-C ₁ VC ₂ | *-C ₁ C ₂ V- |
| §5.2.6 | *-C ₁ 'VC ₂ | *- [?] C ₁ C ₂ V- |
| §5.2.7 | *-C ₁ VC ₂ | no vocalic stem |

C = consonant, F = fricative, V = vowel

Some examples of PM *ʔ-final stems follow. Note that when a plural suffix is enclosed in parentheses in our notation, it attaches directly to the stem if the stem ends in a vowel, but replaces the stem-final ʔ if the stem ends in it, that is, the notation “Mk -kiʔ(-j)” is to be read as “SG -kiʔ, PL -ki-j”.

- (5) PM *áʔ(*-j^h) ‘fruit’ > Mk 3 t-eʔ(-j) • Ni -aʔ(-j) • PCh 3 *hl-áʔ(*-j^h) • PW *t-áʔ(*-j^h)
- (6) PM *á(-j^h)-xiʔ(*-l) ‘mouth’ > Mk -e<xiʔ>(-l) • Ni -a<fi>(-k) • PCh (?) *á<ajʔ> • PW *t-áj-hi(*-l^h)
- (7) PM *φajXoʔ, *φajXó-l / *-φájXoʔ(*-l) ‘coal’ > Ni (-)φajxoʔ(-k) • PCh *hwa(h)jo- • PW *x^wijhoʔ, *x^wijhó-l^h / *-x^wíjho(*-l^h)
- (8) PM *φánhaʔ ~ *φánhaʔ(*-j^h) ‘locust’ > Mk <e>fenheʔ(-j) • Ni φanxa(-j)
- (9) PM *-φálʔuʔ(*-ts) ‘son-in-law, brother-in-law’ > Mk -feluʔ(-ts) • Ni -φaklʔu(-s) ‘brother-in-law’ • PCh *-hwíluʔ[?] ~ -hwéluʔ(*-s) ‘son-in-law’
- (10) PM *jiʔláʔ, *jiʔlá-j^h ‘tree’ > Ni jiʔkláʔ(-j) • PCh *ʔaʔláʔ(*-j^h) • PW *haʔlá, *haʔlá-j^h
- (11) PM *(-)jipkuʔ(*-l) ‘hunger’ > Mk (-)jipkuʔ(-l) • Ni jipkuʔ / -jipku(-k)
- (12) PM *jitʔáʔ, *jitʔá-l ‘vulture’ > Ni jitʔáʔ(-k) • PCh *ʔatʔáʔ(*-l) • PW *hatʔáʔ(?)
- (13) PM *-keʔ(*-j^h) ‘feminine’ > Mk -kiʔ(-j) • Ni -tʔe / -ke(-j) • PCh *-keʔ(*-j^h) • PW *-kʔe(*-j^h)

5 Phonotactics and processes

- (14) PM *-kilá? (*-wot) ‘elder brother’ > Ni -tfe^hkíla? / tfíkíla- (-*βot*) • PCh *-kilá? (*-wot) • PW *-k^jíla
- (15) PM *-kitá? (*-wot) ‘elder sister’ > Ni -t^hfita? (-*βot*) • PCh *-kitá? (*-wot) • PW *-k^jíta
- (16) PM *-k^jínxá? ~ *-k^jínxá? (*-wot) ‘younger sister’ > Mk -k^jínxá? ~ -k^jínxá? • Ni -t^hinxá (-*βot*) • PCh *-k^jíhná? (*-wot) • PW *-k^jínhá
- (17) PM *-lá?, *-lá^jh ‘domestic animal’ > Ni -k^hlá? (-*j*) • PCh *-lá<hwah> • PW *-lá?, *-lá^jh
- (18) PM *(-)ta?, *(-)tá-ts ‘louse’ > Mk -<ij>te? (-*ts*) • Ni -ta? (-*s*) • PCh *-hlá? (*-*s*) • PW *ta?
- (19) PM *-ó? (*-*j*^h) ‘seed’ > Mk 3 t-o? (-*j*) • PCh *-ó? • PW *-t-ó? (*-*j*^h)
- (20) PM *-pe(?), *-pé-l ‘fat’ > Ni -<a>pe? (-*k*) • PCh *-pé? (*-*l*) • PW *-pe(?)
- (21) PM *-pxúse? (*-*j*^h) ‘beard’ > Mk -<a>pxusi? (-*j*) • Ni -páse (-*j*) • PCh *-púse? (*-*j*^h) • PW *-páse (*-*j*^h)
- (22) PM *-qalá? (*-*j*^h) ‘leg’ > Ni -kaklá? (-*j*) • PCh *-qa^jlá? ~ *-qá^jlá? (*-*j*^h) • PW *-qá^jlá (*-*j*^h)
- (23) PM *-támte? (*-*ts*) ‘daughter-in-law’ > Ni -támte<?e> (-*s*) • PCh *-támte? (*-*s*)
- (24) PM *-tátse? (*-*j*^h) ‘eyelash’ > Mk -tetsi? (-*j*) • Ni -tátse (-*j*) • PCh *-táse? (*-*j*^h)
- (25) PM *-te?, *-té^jh ‘eye’ > Mk -t<o?> (-*j*) • PCh *-ta-té? (*-*j*^h) • PW *-t(a)-te? (*-*j*^h)
- (26) PM *-t(á)ko? (*-*l*) ‘face’ > Mk -tko<jek> • Ni -tako? (-*k*) • PCh *-tóko? (*-*l*) • PW *-tá^jo (*-*l*^h)
- (27) PM *-t(á)ko-se? (*-*j*^h) ‘eyebrow’ > Mk -tko-si? (*-*j*) • PCh *-tóko-se? (*-*j*^h) • PW *-tá^jo-se (*-*j*^h)
- (28) PM *-t^jíle? (*-*j*^h) ‘rheum’ > Mk -t^jíli? (-*j*) • Ni -t^jíkle (-*j*) • PCh *-t^jíle-
- (29) PM *t^jisá? ~ t^jisá? (*-*l*) ‘cream-backed woodpecker (*Campephilus leucopogon*)’ > Mk t^jisá? (-*l*) • Ni t^jisá? (-*k*) • PCh *t^jisá? (-*l*)
- (30) PM *-tséwte? (*-*j*^h) ‘tooth’ > Ni -tse^βte (-*j*) • PW *-tsóte (*-*j*^h)
- (31) PM *-wó? (*-*ts*) ‘expert’ > Mk -wo? (-*ts*) • Ni -*β*o? (-*s*) • PCh *-wó? (*-*s*) • PW *-wó? (*-*s*)
- (32) PM *-^jwlí? ~ *-^jwlí?, *-^jwlí-ts ‘rib’ > Mk -^jweli? (-*ts*) • Ni -^jβli / -βli? (-*s*) • PCh *-hli<s>

- (33) PM *xéjãʔ (*-l) ‘bat’ > Mk xajaʔ (-l) • Ni fejá (-k) • PCh *-<ʔa>héjaʔ (*-l)
 (34) PM *ʔéjaʔ (*-l) ‘mosquito’ > Mk ijeʔ (-l) • Ni jijaʔ • PCh *ʔéjaʔ (*-l)
 (35) PM *ʔóʔoʔ (*-ts) ‘pigeon’ > Mk ofoʔ (-l) • Ni ʔóʔo (-s) • PCh *ʔóhwoʔ (*-s)

Some examples of PM *h-final stems are shown below. In this case, only Chorote and (rarely) Wichí show any trace of an original alternation, because word-final PM *h was lost in Maká, Nivaçle, and in some cases in Wichí (see §2.1.12).

- (36) PM *-ʔah, *-ʔa-ts ‘companion’ > Mk -fe (-ts) • Ni -ʔa (-s) • PCh *-hwah, *-hwa-s • PW *-x^wah, *-x^wa-s
 (37) PM *káʔlah, *káʔla-ts ‘lizard’ > PCh *káʔlah, *káʔla-s • PW *k^jáʔlah, *k^jáʔla-s
 (38) PM *-kíʔah, *-kíʔa-ts ‘neighbor’ > Mk -kife (-ts) • Ni -tʃiʔa (-s) • PCh *-kíhwah, *-kíhwa-s
 (39) PM *núʔuh, *núʔu-ts ‘dog’ > Ni núʔu (-s) • PCh *núʔuh, *núʔu-s
 (40) PM *tsʔátsʔih, *tsʔátsʔi-l ‘rufous hornero’ > Mk tsʔitsʔi (-l) • Ni tsʔatsʔi (-k) • PCh *sátʔih • PW *tátsʔi
 (41) PM *X₂₃wéʔlah, *X₂₃wéʔla-ts ‘moon’ > Ni xiʔeʔla (-s) • PCh *wéʔlah, *wéʔla-s • PW *x^wwéʔlah
 (42) PM *ʔámʔáh, *ʔámʔá-ts ‘rat’ > Ni ʔamʔá (-s) • PCh *ʔámʔah ~ *ʔámʔáh, *ʔámʔa-s ~ *ʔámʔá-s • PW *ʔáma
 (43) PM *ʔúlʔáh, *ʔúlʔá-ts ‘dove’ > Ni ʔuklʔá (-s) • PCh *ʔúlʔáh, *ʔúlʔá-s
 (44) PM *ʔVláʔah, *ʔVláʔa-ts ‘lesser grison’ > Mk ile • Ni ʔakláʔa (-s) • PCh *ʔeláʔah, *ʔeláʔa-s ~ *ʔaláʔah, *ʔaláʔa-s • PW *ʔiláʔah

5.2.2 Behavior of stem-final *χ in suffixation

PM *χ-final stems typically form their vowel stems by deleting the uvular fricative altogether. They always select for the plural suffix *-ts.

- (45) PM *jiʔixâtaχ, *jiʔixâta-ts ‘ocelot’ > Mk iʔixataχ, iʔixate-ts • Ni jixâtax, jixâta-s
 (46) PM *kʔú(t)sta(ʔ)χ, *kʔú(t)sta-ts ‘barn owl’ > Ni (?) kʔustax, kʔusta-s ‘mockingbird’ • PCh *kʔústah, *kʔústa-s • PW *kʔústaχ

5 Phonotactics and processes

- (47) PM *[ʔa]lɔχ, *[ʔa]lɔ-ts ‘many’ > Mk <o>lo<ts> • Ni <ʔa>k̄lɔx • PCh *[ʔa]ʔlɔh
• PW *<ʔa>lɔ<s>
- (48) PM *pitéχ, *pité-ts ‘long’ > Ni *pitex*, *pite-s* • PW *pitáχ, *pité-s
- (49) PM *sʷúlaʔχ, *sʷúla-ts ‘anteater’ > Ni sʷβuk̄lax, sβuk̄la-s • PCh *sʷúlah,
*sʷúla-s • PW *súlaχ
- (50) PM *-taχ, *-ta-ts ‘pseudo-’ > Mk -taχ, -te-ts • Ni -tax, -ta-s • PCh *-tah,
*-ta-s • PW *-taχ, *-ta-s
- (51) PM *tóχ-APPL, *tó-ts-APPL ‘far’ > Mk -toχ-ij, to-ts-ij • Ni tox-APPL • PCh
*tóh(w)-APPL, *tó-ts-APPL • PW *tóx^w-ej^b
- (52) PM *wVʔχ, *wVʔ-ts ‘large, fat’ > Ni -βáʔx • PCh *wúh, *wú-s • PW *wúx^w,
*wú-s
- (53) PM *ʷánXáʔáχ, *ʷánXáʔá-ts ‘rhea’ > Mk waatáχ • Ni βánxáʔáx,
βánxáʔá-s • PCh *ʷánhlâh, *ʷánhlâ-s • PW *wáʔnʔáχ, *wáʔnʔá-s
- (54) PM *ʔáʔlá-taχ, *ʔáʔlá-ta-s ‘Argentine boa’ > Ni ʔáʔklâ-tax, ʔáʔklâ-ta-s • PCh
*ʔáʔlá<ta> ~ *ʔáʔlá<ta>, *ʔáʔlá<ta>-s ~ *ʔáʔlá<ta>-s • PW (?) *lá<ta>χ
- (55) PM *ʔál(V)tse(ʔ)χ, *ʔál(V)tse-ts ‘cháguar (*Deinacanthon urbanianum*)’ > Ni
ʔáktsex, ʔáktse-s • PCh *ʔálʔsah, *ʔálʔse-s • PW *ʔáletsáχ
- (56) PM *ʔítá(ʔ)χ, *ʔítá-ts ‘fire’ > Ni ʔitáx, ʔitá-s • PCh *ʔítáh, *ʔítá-s • PW *ʔítáχ,
*ʔítá-s

Yet other PM *χ-final stems form their vowel stems by converting *-Vχ into *-hV-. They too select for the plural suffix *-ts.

- (57) PM *φátsu(ʔ)χ, *φátshu-ts ‘centipede’ > Ni *φatsux*, *φatsxu-s* • PCh
*(h)wásuh, *(h)wásu-s • PW *x^wátsux^w
- (58) PM *(-)kʷútsaʔχ, *(-)kʷútsha-ts ‘old’ > Mk kʷútsaʔχ, kʷútshe-ts • Ni kʷútsaʔx,
kʷútsxa-s • PCh *-kʷúсах, *-kʷúsa-s • PW *-k^jʷútsáχ
- (59) PM *(ʔ)wánaʔχ, *(ʔ)wánha-ts ‘piranha’ > Mk wanaʔχ, wanhe-ts • Ni βanax,
βánxa-s
- (60) PM *(ʔa)X₁₃útsa(ʔ)χ, *(ʔa)X₁₃útsha-ts ‘crested caracara’ > Ni *xutsax*,
xutsxa-s • PCh *(ʔa)húсах, *(ʔa)húsa-s • PW *ʔahútsáχ, *ʔahútsha-s

5.2.3 Velar weakening

PM **k*-final stems typically form their vowel stems by converting **-Vk* into **-hV*.⁴ Similar rules have been described for Maká by Gerzenstein (1989: 72–73) and for Nivačle by Campbell & Grondona (2007: 9–10). In Lower Bermejeño Wichí, Nercesian (2014: 192) analyzes stem-final *-k^w* and *-eq* as suffixes precisely because they alternate with *-hV* in plurals (as in LB *nijok^w*, *niço-j* ‘rope’); a similar stance is taken in Carol (2014b) regarding Iyojwa’aja’ pairs such as *ʔimóhsik*, *ʔimóhse-ʔl* ‘devil, deity’, *-étik*, *-éte-ʔl* ‘head’. We believe that these alternations are best understood as phonological rather than morphological.

- (61) PM **phinák*, **phinhá-j^h* ‘tobacco’ > Mk *finak*, *finha-j* • Ni *phinák*, *phinxá-j*
- (62) PM **-máʔk*, **-mhá-j^h* ‘powder, flour’ > Ni *-máʔk*, *-mxá-j* • PCh **-mák* • PW **-mók^w*, **-mhó-j^h*
- (63) PM **(-)niják*, **(-)nijhá-j^h* ‘rope, cord’ > Mk *(-)nijak*, *(-)nijha-j* • Ni *-niják*, *-nijxá-j* • PCh **niják*, **nijhá-j^h* • PW **niják^w*, **nijhá-j^h*
- (64) PM **-témä(ʔ)k* ~ **-támä(ʔ)k*, **-témh-aj^h* ~ **-támh-aj^h* ‘bile’ > PCh **-témek*, **-téhm-aj^h* • PW **-témeq*, **-témh-aj^h*
- (65) PM **títe(ʔ)k*, **ítithe-j^h* ‘plate’ > Ni *(-)titetʃ*, *(-)titxe-j* • PCh **ítitek*, **ítithe-j^h*
- (66) PM **-xáteʔk*, **-xáthe-j^h* ‘head’ > Ni *-fateʔtʃ*, *-fatxe-s* • PCh **-hétek*, **-héthe-j^h* • PW **-t-éteq*, **-t-éthe-j^h*

It is quite possible that whenever the application of the velar weakening resulted in a cluster of a glottalized stop and **h*, the former became a preglottalized coda, a phenomenon known from vocalic stems with metathesis and glottal reallocation (§5.2.6). However, we know of no relevant examples reconstructible to Proto-Mataguayan.⁵

Note that PM **k* does not simply fricativize to the homorganic **x*: forms such as Mk *(-)nijha-j* ‘ropes, cords’ (with the glottal consonant *h*) as well as Ni *(-)titxe-j*

⁴If the application of the rule would result in an illicit consonant cluster, **-Vk* can change to **-VhV* instead. No clear instances of this avoidance strategy have been reconstructed so far, but its traces have been preserved in various languages: compare Nivačle *takluk*, *takluhu-j* ‘blind’ (Seelwische 2016: 248), *ʔWk la-pʔok*, *la-pʔoho-ç* ‘its fence’ (Claesson 1994: 80), Lower Bermejeño Wichí *la-wek^w*, *la-wehe-j* ‘its owner’ (Nercesian 2014: 192).

⁵Synchronically, velar weakening combined with glottal reallocation has been marginally attested in Nivačle by Seelwische (2016: 182), who documents Ni *napʔuk*, *naʔpxu-j* ‘ashes used as salt; soda’. The existence of the plural form *naʔpxu-j* is, however, not confirmed by Analía Gutiérrez (2023, personal communication). In addition, elsewhere Seelwische (2016: 177) himself documents the vocalic stem of *napʔuk* as *naʔpku-*, without the velar weakening process. Unless this is a mistake on Seelwische’s (2016) part, we may be dealing here with dialectal variation.

5 Phonotactics and processes

‘plates’, *-fatxe-s* ‘heads’ (with the consonant *x* in a palatalizing environment) clearly show that PM **h* has to be reconstructed in these cases. Compare this to the following examples of PM **x*-final stems, where a velar fricative is unequivocally reconstructed in both the consonantal and in the vocalic stems (related by metathesis, see §5.2.5), as evidenced by the velar reflex *x* in Maká and by the palatalized reflex *f* in Nivaçle.

- (67) PM **(-)lútseʔx*, **(-)lútsxe-ts* ‘bow’ > Ni *k̄lútsef* / *-k̄lútseʔf*, *(-)k̄lútsfe-s* • PCh **(-)lúseh* (**-es*) • PW **(-)lútseχ*, **(-)lútse-s*
- (68) PM **-naʔx* ~ **-náʔx* / **-nxa-* ~ **-nxá-* ‘nose’ > Mk *-neʔx* / *-nxe-* • Ni *-naʔf*, *-nfa-s* • PCh **-hná<tVwoh>* • PW **-nh<us>*
- (69) PM **(-)ʔnájiʔx*, **(-)ʔnájx-ajʰ* ‘path’ > Ni *nájiʔf*, *(-ʔ)nájf-aj* / *-ʔnájiʔf* • PCh **(-)ʔnájih*, **(-)ʔnáhj-ajʰ* • PW **(-)ʔnájiχ*, **(-)ʔnájh-ajʰ*
- (70) PM **-táwäʔx*, **-táwxä-ts* ‘(abdominal) cavity’ > Mk *-taweʔx*, *-tawxe-ts* • Ni *-táβaʔf*, *-táβxa-s* • PCh **-tóweh* • PW **-tóweχ*

Some PM **k*-final stems, all of which have a rounded vowel preceding the velar stop, are lexically specified for not undergoing the velar weakening process. Instead, they undergo metathesis (§5.2.5) or lack a vocalic stem altogether (§5.2.7).

- (71) PM **-(j)uk*, **-(j)ku-jʰ* ‘tree (suffix)’ > Mk *-(j)uk*, *-(j)kw-i* • Ni *-(j)uk*, *-ku-j* • PCh **-(j)uk*, **-(j)ku-jʰ* • PW **-(j)uk^w*, **-k^ju-jʰ*
- (72) PM **ʔmók* (**-its*) ‘zorzal bird (*Turdus* sp.)’ > Mk *mok* (*-its*) • Ni *mok* (*-is*) • PCh **ʔmók* (**-is*)
- (73) PM **tänúk* (**-its*) ‘feline’ > Mk *tenuk* (*-its*) • Ni *tanuk* (*-is*) • PCh **tinúk* (**-is*)
- (74) PM **tsänúk* ‘duraznillo trees’ > Ni *tsanuʔk*, *tsanku-j* • PCh **sinúk*, **sinúku-j*
- (75) PM **φts-uʔk* ‘palm (*Copernicia alba*)’ > Mk *fits-uk*, *fis-kw-i* • Ni *φts-uʔk* / *φts-uk-i* • PCh **hwis<úk>*, *hwis<úk^j>u-j^j* • PW **x^wits<uk^w>*

One could suspect that at some stage, before the divergence of Proto-Mataguyan into the daughter languages, these stems ended in a uvular stop (PM **q*). Recall from §2.1.5 that synchronically PM **q* in a coda position can only be preceded by a low vowel (PM **a* or *ã*). Therefore, one can tentatively reconstruct a sound change whereby the Pre-Proto-Mataguyan rhymes **-oq* and **-uq* yielded Proto-Mataguyan **-ok* and **-uk*. Velar weakening would have arisen only in those stems that ended in a **-k* – but not in **-q* – in Pre-Proto-Mataguyan.

5.2.4 Ban on *h after fricatives

Whenever velar weakening (§5.2.3) would result in a sequence of a Proto-Mataguyan fricative and *h, the glottal fricative does not surface altogether. If the velar weakening process operated “normally”, one would expect the vocalic stem of nouns such as *-tʰuʔk ‘yica bag, load’ to have been **-*tʰu-, but the reflexes in the daughter languages rather point to *-tʰu-. Some examples follow.

- (76) PM *-tʰiʔk ~ *-tʰiʔk, *-tʰi-jʰ ‘thread’ > Ni -tʰiʔtʃ, -tʰi-j<is> • PCh *-hlík, *-hlí-jʰ
 (77) PM *-tʰuʔk, *-tʰú-jʰ ‘yica bag, load’ > Mk -tʰuʔk, -tʰu-j • Ni -tʰuʔk • PCh *-hlúk, *-hlúj-... • PW *-tʰukʷ, *-tʰú-j<is>
 (78) PM *-X₁₃uʔk, *-X₁₃ú-jʰ ‘firewood’ > Ni -xuʔk, -xu-j • PCh *(ʔitâh)-huk • PW *-hukʷ, *-hú-j<is>

We take this as evidence that synchronically sequences of a fricative and *h were banned in Proto-Mataguyan, possibly due to a Pre-Proto-Mataguyan sound change *Fh > *F, where F stands for any fricative. Note that the sequences *φh, *th, *sh, *xh, *χh, or *hh are not reconstructed anywhere in the lexicon.

5.2.5 Metathesis

Stems that end in an obstruent may form their vocalic allomorph by means of metathesis of the final two segments of the stem. Similar rules have been described for Maká (plant names) by Gerzenstein (1989: 74) and for Nivaçle by Gutiérrez (2015b: 272–274). The latter author also claims that the metathesis in Nivaçle is driven by two requirements, namely, the avoidance of complex codas and the satisfaction of the Syllable Contact Law (Murray & Vennemann 1983), whereby “sonority should not rise across a syllable boundary (from an obstruent to a sonorant)” (Gutiérrez 2020: 295). Note that preglottalized codas undergo deglottalization upon metathesizing, as in (81), (86), (87); this is still synchronically the case in Maká and Nivaçle.

- (79) PM *-âq, *-qá-ts ‘food’ > Mk -aq, -qa-ts • Ni -âk, -kâ-s • PCh *-âk, -qá-s • PW *-tâq, *-qá<s>
 (80) PM *-âφ, *-φá-ts ‘wing’ > Mk 3 t-ef, t-fe-ts • Ni -aφ, -<a>φa-s • PCh *-hw<és> • PW *-t-exʷ
 (81) PM *-φuʔt ~ *-φúʔt, *-φtú-ts ‘flatulence’ > Mk -ftu-ts • Ni -φuʔt, -φtu-ts • PCh *-hwút

5 Phonotactics and processes

- (82) PM **(-)(j)uk*, **(-)(j)ku-j^h* ‘tree (suffix)’ > Mk *-(j)uk*, *-(j)kw-i* • Ni *-(j)uk*, *-ku-j* • PCh **(-)(j)uk*, **(-)(j)ku-j^h* • PW **(-)(j)uk^w*, **-k^lu-j^h*
- (83) PM **-kéjâts* (m.), **-ké(j)tsâ-ts* (pl.) ‘grandchild’ > PCh **-kéjâs*, **-kétsâs* • PW **-k^jéjâs*, **-k^jétsâs*
- (84) PM **-k’inix*, **-k’inxi-ts* ‘younger brother’ > Mk *-k’inix* • Ni *-tfinif* • PCh **-k’inih*, **-k’ihni-s* • PW **-k^j’iniχ*, **-k^j’inhi-s*
- (85) PM **(-)lútse^ʔx*, **(-)lútsxe-ts* ‘bow’ > Ni *kłutsef* / *-kłutse^ʔf*, *(-)kłutsfe-s* • PCh **(-)lúseh* (**-es*) • PW **(-)lútseχ*, **(-)lútse-s*
- (86) PM **-na^ʔx* ~ **-ná^ʔx* / **-nxa-* ~ **-nxá-* ‘nose’ > Mk *-ne^ʔx* / *-nxe-* • Ni *-na^ʔf*, *-nfa-s* • PCh **-hná<tVwoh>* • PW **-nh<us>*
- (87) PM **-táwä^ʔx*, **-táwxä-ts* ‘(abdominal) cavity’ > Mk *-tawe^ʔx*, *-tawxe-ts* • Ni *-tâβa^ʔf*, *-tâβxa-s* • PCh **-tóweh* • PW **-tóweχ*
- (88) PM **-täts-u^ʔk*, **-täts-ku-j^h* ‘trunk’ > Ni *-tats-uk*, *-tas-ku-j* • PCh **(-)tés-uk*, **-tés-ku-j^h*

In some idiosyncratic cases, vocalic stems formed by means of metathesis select for the vowel-initial allomorph of the plural suffix, and the final vowel of the vocalic stem is therefore deleted. Synchronically, the resulting pattern has been described as vowel syncope.

- (89) PM **(-)^ʔnâji^ʔx*, **(-)^ʔnâjx-aj^h* ‘path’ > Ni *nâji^ʔf*, *(-)^ʔnâjf-aj* / *-^ʔnâji^ʔf* • PCh **(-)^ʔnâjih*, **(-)^ʔnâhj-aj^h* • PW **(-)^ʔnâjiχ*, **(-)^ʔnâjh-aj^h*
- (90) PM **-wä^ʔx*, **-w(ä)x-âj^h* ‘burrow; anus’ > Ni *-βa^ʔf*, *-βaf-aj^h* • PCh **-wéh* • PW **-wéχ*, *-wh-âj^h*

At least in Nivaçle, the metathesis rule does not apply if it would result in an illicit consonant cluster: the vowel is copied instead, so that the stem-final consonant appears flanked by identical vowels in the vocalic stem, as in Ni *xot*, *xoto-j* ‘sandy place’ (Gutiérrez 2015b: 277). Even though similar alternations were found in other languages, as in Ijw *t-’ák*, *t-’aká-’l* ‘rope’ (Carol 2014a: 92), Mj *hi-hwétus*, *hi-hwétusu-j* ‘its root’ (Carol 2018), we have not been able to reconstruct any clear case of a PM lexeme that would follow such a pattern.

5.2.6 Metathesis and glottal reallocation

The pattern described in this subsection must have been quite rare in Proto-Mataguyan. It arises when the application of metathesis (§5.2.5) would result in a consonant cluster whose first member is a glottalized stop. In this case, the

stop surfaces as preglottalized rather than ejective, as in Ni *-kâts'ex* ‘diarrhea’ and *-kâ'tsxe-nax* ‘person that has diarrhea’ (Gutiérrez 2015b: 227).⁶ This pattern has been preserved only in Nivaçle, but it is evidently quite archaic.

Consider the following pair of nouns, both of each are securely reconstructible to Proto-Mataguayan. The derivational relation between them is not productive, but it is possible to speculate that the latter member of the pair contains a fossilized masculine suffix **-ʔk*, added to the vocalic stem of the former (with metathesis and glottal reallocation).

- (91) PM **-t'ox* ~ **-t'óx* ‘aunt’ > Ni *-t'ox* • PCh **-<i>t'óh* • PW **-<wi>t'ox*
 (92) PM **-ʔtxoʔk* ~ **-ʔtxóʔk*, **-ʔtxóko-wot* ‘uncle’ > Mk *-txoʔk* • Ni *-ʔtxoʔk*,
-ʔtxoko-ʔot • PCh **-<i>tók*, **-<i>tóko-wot* • PW **-<wi>thok^w*

The [constricted glottis] feature in the initial consonant of the term for ‘uncle’ can be seen in Nivaçle forms where stress falls on the prefix, such as *ji-ká-ʔtxok* ‘my brother-in-law’ (Gutiérrez 2015b: 191). In forms such as Ni *ji-txóʔk* ‘my uncle’, no preglottalization is found, because Nivaçle systematically deglottalizes the codas in all prosodically weak syllables. In other languages, there are no traces of the [constricted glottis] feature in the term for ‘uncle’ (in stark contrast with the term for ‘aunt’). Recall from §2.3 that Maká and Nivaçle are the only languages that retain the contrast between preglottalized and plain obstruent codas. That way, the obvious solution is to reconstruct the vocalic stem of PM **-t'ox* ~ **-t'óx* as PM **-ʔtxo-* ~ **-ʔtxó-*, where metathesis is combined with the reallocation of the [constricted glottis] feature to the left. The Maká term for ‘uncle’ is regrettably not attested in our sources that distinguish between plain and preglottalized codas. Other Nivaçle stems that show the phenomenon in question, such as the pair Ni *nap'uk* ‘ashes used as salt; soda’ and *na'pku-tax* ‘salt’ (Seelwische 2016: 177, 182), lack known cognates in other Mataguayan languages.

5.2.7 Absence of a vocalic stem

Not all consonantal stems have a vocalic counterpart. Some of them remain unaltered before any suffixes, with the proviso that preglottalized codas deglottalize when they resyllabify as the onset of the next syllable before certain affixes (for example, the plural form of **k'utX₂₃á'n* ‘thorn’ is reconstructed as **k'utX₂₃án-its*).⁷

⁶Since in Nivaçle only prosodically prominent syllables allow for a glottal or preglottalized coda, no preglottalization surfaces in forms such as Ni *?ap'ax*, *?apxa-* ‘jararaca’ (Gutiérrez 2015b: 273).

⁷Only a subset of vowel-initial affixes behaves like this. Others can attach to stems that end in a preglottalized coda without triggering deglottalization, as in **ji-pé'j-a?* ‘s/he hears’.

5 Phonotactics and processes

Some suffixes have dedicated allomorphs that co-occur with consonantal stems. For example, the plural suffixes surface as **-áj*, **-íts*, and **-él* after consonants.⁸ Other suffixes have only one allomorph. In Nivačle and Chorote, an epenthetic vowel may occur between a consonantal stem and a consonant-initial suffix: Ni *βosokl-[i]tax* ‘big butterfly’, *↑-up-[i]tʃat* ‘group of nests’, *p’ok-[i]βaf* ‘mark of an arrow’ (Gutiérrez 2015b: 68–69); Ijw *wi’jít-[i]p* ‘winter’, *hi-’wét-[i]hwa* ‘her/his neighbor’ (Carol 2014b). It is as of yet unclear whether the vowel epenthesis strategy was employed in Proto-Mataguayan, since some Mataguayan varieties lack it: compare *’Wk x’itsúk-tax* ‘kind of palm’, *ha-’wét-x’ah* ‘your neighbor’ (Claesson 2016: 56, 172), with no vowel epenthesis.

The following nouns are reconstructed as lacking a vocalic stem, as seen in the respective plural forms.

- (93) PM **-ǎʃ*, **-ǎj-is* ‘yica bag’ > Ni *-aʃ*, *-aj-is* • PCh **-éjʔ* (**-is*) • PW **-ǎ-éj* (**-is*)
- (94) PM **-éj* (**-its*) ‘name’ > Mk *-ij* (*-its*) • Ni *-ej* (*-is*) • PCh **-éjʔ* (**-is*) • PW **-ǎ-éj* (**-is*)
- (95) PM **jináʔt*, **jinát-its* ‘water’ > Ni *jináʔt*, *jinát-is* • PCh **ʔiʔnát* (**-es*) • PW **ʔinát* (**-es*)
- (96) PM **-káʔs*, **-káš-él* ‘tail’ > Ni *-káʔs*, *-káš-ek* • PCh **-káš* • PW **-kʔás*, **-kʔás-el^h*
- (97) PM **-ko(ʔ)j* (**-áj^h*) ‘hand, arm’ > Mk *-koj* (*-ej*) • PCh **-kójʔ*, **-koj-áj^h*
- (98) PM **k’utX₂₃án*, **k’utX₂₃án-its* ‘thorn’ > Ni *k’utxaʔn*, *k’utxan-is* • PCh **k’utáʔn*, **k’után-is* • PW **kʔ’utháʔn*, **kʔ’uthán-is*
- (99) PM **loʔp* ~ **lóp*, **lop-íts* ~ **lóp-its* ‘winter’ > Mk *loʔp*, *lop-its* • Ni *kloʔp*, *klop-is* • PCh **lóp* • PW **lop* ~ **lóp*
- (100) PM **-ʔliʔx*, **-ʔlix-áj^h* ‘language, word’ > Mk *-ʔlix<eʔ>* • Ni *-ʔkliʔf*, *-ʔklif-aj* • PCh **-ʔlih*, **-ʔlih-áj^h*
- (101) PM **ʔmók* (**-its*) ‘zorzal bird (*Turdus* sp.)’ > Mk *mok* (*-its*) • Ni *mok* (*-is*) • PCh **ʔmók* (**-is*)

⁸In fact, some authors, such as Nercesian (2014: 190) for Lower Bermejeño Wichí and Gutiérrez (2015b: 274–8) for Nivačle, have described the vowels appearing in such allomorphs as epenthetic. Note, however, that different suffixes show up with different vowels in Proto-Mataguayan, a fact that makes us think that the vowels in question are part of the underlying representation of the suffix. Of course, innovations in individual Mataguayan languages and dialects have altered the picture in some cases. For instance, in Nivačle the allomorphs **-íts* and **-él* are reflected as *-ik/-ek*, *-is/-es*, with the choice of the vowel depending on the dialect, on the preceding consonant, and even on the lexeme, with some inter- and intra-speaker variation (Gutiérrez 2015b).

- (102) PM **péla*([?])*j*, **péłaj*-its ‘rain’ > Mk *piłej* (-its) • PCh **péhlaj*? • PW **péłaj*^h, **péłaj*-is
- (103) PM **qati*[?]*ts*, **qatits*-él ‘star’ > Ni *kati*[?]*s* • PCh **qatés*, **qates*-él • PW **qates*, **qatés*-el^h
- (104) PM **-qéj* (*-its) ‘custom’ > Ni *-kej* (-is) • PCh **-qéj*? (*-is) • PW **-qéj* (*-is)
- (105) PM **sâlâ*([?])*l*, **sâlâl*-its ‘middle-sized cicada’ > Mk *sala*([?])*l*, *salal*-its • Ni *sâkl*<*âkl*>*âk* (-is)
- (106) PM **slâqha*([?])*j*, **slâqhaj*-its ‘wild cat’ > Ni *fkłâkxaj* ~ *skłâkxaj* (-is) • PCh **s[?]lâhqaj*? ~ **s[?]lâhqâj*? (*-is) • PW **silâqhâj*
- (107) PM **stwú*[?]*n*, **stwún*-its ‘king vulture’ > Ni *staβu*[?]*n*, *staβun*-is • PCh **ʔ[?]stúu*[?]*n*, **ʔ[?]stúun*-is • PW **ʔistiwin*
- (108) PM **tänúk* (*-its) ‘feline’ > Mk *tenuk* (-its) • Ni *tanuk* (-is) • PCh **tinúk* (*-is)
- (109) PM **-tä*([?])*ts*, **-täts*-él ‘trunk, base’ > PCh **-tés* (*-el) • PW **-tes*, **-tét*s-el^h
- (110) PM **tós* (*-its) ‘snake’ > Ni *tos* (-is) • PCh **tós* (*-is)
- (111) PM **tsâháq* (*-its) ‘chajá bird’ > Mk *tsahaq* (-its) • PCh **sâháq*, **sâháq*-es
? **sâháq*-is • PW **tsâháq*
- (112) PM **-ú*[?]*p*, **-úp*-its ‘nest’ > Mk 3 *t-up* (-its) • Ni *-u*[?]*p*, *-up*-is • PCh **-úp* (*-is)
• PW **-t-up* (*-is)
- (113) PM *[?]*wá*([?])*x*, *[?]*wáx*-aj^h ‘stagnant water’ > PCh **hl*-<*a*>[?]*wáh* (*-aj^h) • PW *[?]*wáχ*, *[?]*wáh*-aj^h
- (114) PM *...*X₂₃a*[?]*t* (*-its) ‘earth’ > Ni <*kots*>*xa*[?]*t*, <*kots*>*xat*-is • PCh *<*ʔa*>*h*<*n*>*át*
~ *<*ʔá*>*h*<*n*>*át* (*-es) • PW *<*hon*>*hat*, *<*hon*>*hát*-es
- (115) PM **-ʔâx* (*-its) ‘skin, bark’ > Mk *-ʔax* (-its) • Ni *-ʔâx* (-is) • PCh **-ʔâh*, **-ʔâh*-és • PW **-t-’âχ*, **-t-’âh*-és
- (116) PM **-ʔäsχa*[?]*n*, **-ʔäsχán*-its ‘meat’ > Mk *-ʔese*[?]*n*, *-ʔesen*-its • Ni *-(ʔa)sxa*[?]*n*,
-(ʔa)sxan-is • PCh **-ʔisá*[?]*n*, **-ʔisán*-is • PW **-t-’isa*[?]*n*, **-t-’isán*-is

5.3 Allomorphs of prefixes

Many prefixes display an allomorphy pattern whereby a moraic allomorph is used before stems that start with a supraglottal consonant, and a non-moraic allomorph occurs with stems that begin with a vowel or a glottal stop (in which

Table 5.2: PM alternating prefixes

| | before C | before V | before ? |
|--|----------|----------|----------|
| 1.POSS, 1.A/S _A .IRR, 3.A/S _I .RLS | *ji- | *j- | *ʔj- |
| 2.POSS, 2.A/S _A .IRR | *ʔa- | *∅- | *∅- |
| 3.POSS, 2.A/S _A .RLS | *ɬ- | *ɬ- | *ɬʔ- |
| 2.S _P /P.RLS, 3.A/S.IRR | *n- | *n- | *ʔn- |
| 3.S _T | *t- | *t- | *tʔ- |
| 1.A/S _A .RLS | *ha- | *h- | *kʔ- |

case the prefix coalesces with the glottal stop). Homophonous prefixes follow identical allomorphy patterns in Proto-Mataguayan.

For details, see Chapter 10 and the discussion in §2.6.

5.4 Irregular verbs

A very limited number of Proto-Mataguayan verbs are reconstructed as having an alternation between low vowels and *i, where the vowel *i appears after prefixes of the shape *j- (including 3.A/S_I.RLS and 1.A/S_A.IRR).

- (117) PM 1 *h-āk, 2 *ɬ-āk, 3 *[j]ik; CISL *n-āk ‘to go away’ > Mk 1 h-ak, 2 ɬ-ak, 3 ik; CISL n-ek • Ni 1 x-āk, 2 ɬ-āk, 3 [j]itf; CISL n-atf • PCh 1 ʔák, 2 *hl-ék • PW 2 *ɬ-eq, 3 *[j]iq; CISL *n-eq
- (118) PM *-áp, 3 *ʔ[j]ip ‘to cry’ > Mk -ap, 3 ip • Ni -ap, 3 [j]ip • PCh *[j]áp • PW *ʔ[j]ip
- (119) PM *-ʔá(ʔ)l, 3 *ʔʔ[j]i(ʔ)l ‘to die’ > PCh *ʔʔ[j]á(ʔ)l • PW *ʔʔ[j]il^h

In the latter two cases, Chorote has generalized the allomorph with a low vowel, and Wichí the one with a high vowel.

6 Maká

This chapter deals with the historical phonology of Maká [maca1260] (§1.1.1), including the development of its consonants (§6.1), vowels (§6.2), and prosody (§6.3) from the PM stage to Maká.

In what follows, we rely on Gerzenstein’s (1994) grammatical description (which incorporates most of her 1989 findings) and on Gerzenstein’s (1999) dictionary. However, these sources do not faithfully represent the glottalized sonorants and the preglottalized codas; for these sounds, we rely on Wycliffe’s Bible translations, on Braunstein’s (1987) work, and on recently published materials in Maká (Unu’uneiki Patricia 2011, Tekombo’e ha Tembikuaa Motenondeha 2020, UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022).

The consonantal inventory we assume for Maká is given in Table 6.1. The status of the ejective fricatives is dubious; they have been alternatively analyzed as sequences of plain fricatives and a glottal stop (Gerzenstein 1994). Note that we apply Gutiérrez’s (2015b) analysis of the Nivaçle preglottalized codas as complex codas to the Maká preglottalized codas, and do not posit a set of preglottalized stops and fricatives; therefore, Maká *feʔt* ‘fire’ is analyzed as /feʔt/. The vocalic inventory we assume for Maká includes only five vowels, /i e a o u/.

Table 6.1: Maká consonants

| | labial | dental | alveolar | velar | uvular | glottal |
|--------------------------|--------|--------|----------|-------|--------|---------|
| plain stops | p | t | ts | k | q | ʔ |
| ejective stops | pʼ | tʼ | tsʼ | kʼ | qʼ | |
| plain fricatives | f | ʧ | s | x | χ | h |
| (ejective fricatives) | (fʼ) | (ʧʼ) | (sʼ) | (xʼ) | | |
| plain approximants | w | l | | j | | |
| glottalized approximants | ʷ | ʷl | | ʷj | | |
| plain nasals | m | n | | | | |
| glottalized nasals | ʷm | ʷn | | | | |

6.1 Consonants

Maká is conservative in that it has retained most Proto-Mataguayan consonants intact.

6.1.1 PM * ϕ

One minor (and unconditioned) sound change has transformed PM * ϕ , reconstructed as a bilabial fricative, into Mk *f*, explicitly stated to be articulated as labiodental by Gerzenstein (1989: 30). For examples, see §2.1.7.

In the variety of Maká attested by Demersay (1860: 456) under the name ‘Lengua’, the sound in question is mostly represented as <fu>, as in <fuêté> ‘fire’, <hiafué> ‘teeth’, <hicfué> ‘ear’ (modern Maká *feʔt*, –, *ji-kfiʔ*), suggesting that it was articulated as [ɸ] or [fʷ] in that variety.

6.1.2 Loss of the word-initial glottal stop

Another innovation is the loss of the word-initial glottal stop, which was not contrastive in that position in Proto-Mataguayan in any case (it is reconstructed as an epenthetic segment inserted before words that would otherwise begin with a vowel). Gerzenstein (1989: 26–27, 49) is not explicit on whether word-initial *ʔ* actually contrasts with zero in Maká synchronically: although she documents forms such as *ʔaftil* ‘you are orphan’, in the vast majority of cases word-initial (non-phonemic) glottal stops of other Mataguayan languages correspond to zero in Maká.

6.1.3 PM **h*

The glottal fricative PM **h* has been lost word-finally in Maká, and *h* no longer occurs in that position synchronically (Gerzenstein 1989: 34). This includes PM **j*^h, **l*^h.

- (1) PM *-(á)*j*^h ‘PL’ > Mk *-(e)j* • Ni *-(a)j* • PCh *-(á)*j*^h • PW *-(á)*j*^h
- (2) PM *-*ej*^h ‘APPL:DISTAL’ > Mk *-ij* • Ni *-ej* • PCh *-*ej*^h • PW *-*ej*^h
- (3) PM *-*φah*, *-*φa-ts* ‘companion’ > Mk *-fe (-ts)* • Ni *-φa (-s)* • PCh *-*hwah*, *-*hwa-s* • PW *-*x^wah*, *-*x^wa-s*
- (4) PM *-*kíφah*, *-*kíφa-ts* ‘neighbor’ > Mk *-kife (-ts)* • Ni *-tíφa (-s)* • PCh *-*kíhwah*, *-*kíhwa-s*
- (5) PM **máh* ‘go!’ > Mk *ma* • Ni *má* • PCh **máh* • PW **máh*

- (6) PM **-sáq'ál^h*, **-sáq'ál-its* ‘soul, spirit’ > Mk (?) *-si'ng'al (-its)* • Ni *-sák'ákl<it>* • PCh **-sáq'ál^h*, **-sáq'ál-is*
- (7) PM **ts'áts'ih*, **ts'áts'i-l* ‘rufous hornero’ > Mk *ts'its'i (-l)* • Ni *ts'ats'i (-k)* • PCh **sát'ih* • PW **táts'i*
- (8) PM **-xíj^h* ‘recipient’ > Mk *-xij* • Ni *-fij / -xij* • PW **-híh*
- (9) PM **?Vlá?ah*, **?Vlá?a-ts* ‘lesser grison’ > Mk *ile* • Ni *?aklá?a (-s)* • PCh **?elá?ah*, **?elá?a-s* ~ **?alá?ah*, **?alá?a-s* • PW **?ilá?ah*

6.1.4 PM *ji

The sequence PM **ji* is reflected as *ji* or *i* in Maká, with no clear distribution. Gerzenstein (1989: 36–37) states that the sequence /ji/ surfaces as [ji] in Maká.

- (10) PM **jijá'ts* ‘dew’ > Mk *ije'ts* • Ni *jija's* • PCh **?ijés-tah* • PW **?ijás*
- (11) PM **(-)jipku?* (**-l*) ‘hunger’ > Mk *(-)jipku?* (*-l*) • Ni *jipku?* / *-jipku (-k)*
- (12) PM **jixá(?)* ~ **jixá(?)* ‘to be true’ > Mk *ixa* • Ni *jixá?* • PCh **?ihá<wet>*
- (13) PM **ji?ixâtaχ*, **ji?ixâta-ts* ‘ocelot’ > Mk *i?ixataχ*, *i?ixate-ts* • Ni *jixâtax*, *jixâta-s*

The third-person active prefix (PM **ji-*) is also variably reflected as *ji-* or *i-* in Maká: *ji-lan* ‘kills’, *ji-li'x-xu?* ‘cleans’, *ji-nxi'wen* ‘smells’, *ji-pi'je?* ‘hears’, *ji-su'un* ‘loves’, *ji-tił* ‘sews’, *ji-'wen* ‘sees’, *ji-t'ix* ‘says’, *ji-wef* ‘is tired’, but *i-ma?* ‘sleeps’, *i-wu'm* ‘pushes, throws’, *i-k* ‘goes’, *i-p* ‘cries’.

6.1.5 Destiny of glottalized sonorants

Although our main sources on Maká (Gerzenstein 1989, 1994, 1999) do not attest any traces of glottalization in sonorants, more recent publications suggest that Maká has actually preserved the preglottalized sonorant onsets of PM, at least word-internally. These are spelt as <'w>, <'l>, <'y>, <'m>, <'n> in Wycliffe's Bible translations, in Unu'unei Patricia (2011), and in Tekombo'e ha Tembikuaa Motenondeha (2020), UNICEF & Tekombo'e ha Tembikuaa Motenondeha (2022). Some examples follow.

- (14) PM **-'lix-áj^h* ‘languages, words’ > Mk *-'lix-ej* • Ni *-'klif-aj* • PCh **-'lih-áj^h*
- (15) PM **-'mat* ‘negative quality, physical defect’ > Mk *-'met* • Ni *-'mat* • PCh **-'mat*

- (16) PM *[ji]nxi^ʔwän ‘to smell’ > Mk [ji]nxi^ʔwen • PCh *[ʔi]hni^ʔwen
 (17) PM *[ji]pé^ʔj-aʔ ‘to hear’ > Mk [ji]pi^ʔj-eʔ • Ni [ji]pe^ʔj-a • PCh *[ʔi]pé^ʔj-aʔ
 (18) PM *-whá^ʔjaʔ ‘spouse’ > Mk -whe^ʔjeʔ • Ni -xa^ʔja • PCh *-hwá^ʔjaʔ
 (19) PM *[t]wha^ʔǰǰ-ʔj ‘to marry’ > Mk [te]whe^ʔje-j • Ni [t]xa^ʔja-ʔj • PCh
 *[t^ʔ]hwa^ʔǰǰ<jʔ> • PW *[t]whá^ʔje<j>
 (20) PM *[ji]^ʔwǎn ‘to see’ > Mk [ji]^ʔwen • Ni [ji]^ʔβan • PCh *[ʔi]^ʔwén • PW
 *[hi]^ʔwén
 (21) PM *-^ʔwät ‘place’ > Mk -^ʔwet • Ni -^ʔbat • PCh *-^ʔwét • PW *-^ʔwet
 (22) PM *-^ʔwǎiʔ ~ *-^ʔwǎiʔ, *-^ʔwǎiʔ-ts ‘rib’ > Mk -^ʔwetiʔ (-ts) • Ni -^ʔβǎi / -βǎiʔ (-s) •
 PCh *-hlǎ<s>

Word-initially, however, glottalized sonorants are not attested. We surmise that PM glottalized sonorants underwent deglottalization in that environment.

- (23) PM *^ʔnátu(h), *^ʔnátu-ts ‘day, world’ > Mk neʔtu (-ts) • Ni nátu (-s) • PCh
 *^ʔnáhl<ekis> ~ *^ʔnáhl<ekes> ‘midday’
 (24) PM *^ʔwánXáǰǰ, *^ʔwánXáǰǰ-ts ‘rhea’ > Mk waáǰǰ • Ni βǎnxáǰǰ,
 βǎnxáǰǰ-s • PCh *^ʔwánhlǎh, *^ʔwánhlǎ-s • PW *wá^ʔnǰǰ, *wá^ʔnǰǰ-s
 (25) PM *-^ʔwV^ʔǰ ~ *-^ʔwV^ʔǰ ‘to climb’ > Mk we^ʔǰ • Ni βǎ^ʔǰ • PCh *[ʔi]^ʔwúǰ • PW
 *[t]^ʔwuǰ ~ *[t]^ʔwúǰ

6.1.6 Destiny of preglottalized codas

Although our main sources on Maká (Gerzenstein 1989, 1994, 1999) do not attest any traces of glottalization in codas, more recent publications suggest that Maká has actually preserved most preglottalized codas of PM with no modifications. In Wycliffe’s Bible translations, in Unu’unei Patricia (2011), and in Tekombo’e ha Tembikuaa Motenondeha (2020), UNICEF & Tekombo’e ha Tembikuaa Motenondeha (2022) codas spelt as <’C> (in the practical orthography) occur abundantly precisely in words whose PM etyma are reconstructed with a glottalized coda; some examples are given below.

- (26) PM *[n]a^ʔǰ ~ *[n]ǰ^ʔǰ ‘to burn’ > Mk [n]e^ʔǰ-xuʔ • Ni [ji]<n>-a^ʔǰ
 (27) PM *ǰ-ǰáni^ʔs ‘its stinger’ > Mk ǰ-ani^ʔs • Ni ǰ-ǰanis • PCh *hl-ǰanis • PW
 (?) *ǰ-ǰǰni
 (28) PM *ǰ-ǰǰs ‘her/his son’ > Mk ǰ-a^ʔs • Ni ǰ-ǰǰs • PCh *hl-ǰǰs • PW *ǰ-ǰǰs
 (29) PM *[j]ékǰǰa^ʔx ‘to bite’ > Mk [j]ikǰǰe^ʔx • PCh *[j]ókǰǰwah • PW *[j]ókǰǰwaǰ

- (30) PM **-φájiʔx* ‘right’ > Mk *-fejiʔx* ‘left’ • Ni *-φajiʔf* • PCh **-hwíjah*
- (31) PM **φaʔt* ~ **φáʔt* ‘fire’ > Mk *feʔt* • PCh **hwát*
- (32) PM **[j/?]is{a/á/e}ʔχ* ~ **[j/?]is{á/á/é}ʔχ* ‘sand’ > Mk *isaʔχ* • PCh **ʔisáh* ~ **ʔisáh*
- (33) PM **[ji]kaʔχ* ~ **[ji]káʔχ* ‘to take away’ > Mk *[j]<e>kaʔχ* • Ni *[ji]tfaʔx* • PW **[ji]kʰáχ*
- (34) PM **[ji]kúʔt* ‘to answer’ > Mk *[j]<e>kuʔt* • Ni *[ji]kuʔt* • PCh **[ʔi]kúhl-APPL* • PW **[ni]kʰúʔt*
- (35) PM **[wa]kumaʔχ* ‘to run’ > Mk *[we]kumaʔχ* • Ni *[βa]kumaʔx*
- (36) PM **[t]kúʔm-APPL* ‘to grab; to work’ > Mk *[te]kuʔm-APPL* • Ni *[tʰa]kuʔm-APPL* • PCh **[ʔi]kúm-APPL* • PW **[t]kʰú(ʔ)m-APPL*
- (37) PM **[ji]kʰásaʔχ* ~ **[ji]kʰáseʔχ* ‘to divide’ > Mk *[j]<a>kʰesaʔχ* • PCh **[ʔi]kʰésah* • PW **[hi]kʰésaχ*
- (38) PM **loʔp* ~ **lóʔp*, **lop-íts* ~ **lóp-its* ‘winter’ > Mk *loʔp*, *lop-its* • Ni *kloʔp*, *klop-is* • PCh **lóp* • PW **lop* ~ **lóp*
- (39) PM **[ji]táʔm* ‘to defecate’ > Mk *<i>táʔm* • Ni *[ji]táʔm* • PCh **[ʔi]hláʔm* • PW **[t]<ʰa>táʔm*
- (40) PM **-táwäʔx*, **-táwxä-ts* ‘(abdominal) cavity’ > Mk *-taweʔx*, *-tawxe-ts* • Ni *-táβaʔf*, *-táβxa-s* • PCh **-tóweh* • PW **-tóweχ*
- (41) PM **tiʔφ* ‘to suckle’ > Mk *tuʔf/ -tuʔf* • Ni *tiʔφ* • PCh **[ʔi]tím* • PW **tip*
- (42) PM **pháʔm* ‘up’ > Mk *-phaʔm* • PCh **pʰáʔm* • PW **-phá / *phâm-*
- (43) PM **táʔt* ‘to sprout’ > Mk *taʔt* • Ni *táʔt* • PCh **táʔt* • PW **táʔt*
- (44) PM **[ji]woʔm* ‘to throw’ > Mk *[i]wuʔm* • PCh **[ʔi]wóm-APPL* • PW **[ʔi]woʔm*
- (45) PM **-ʔwVʔt* ~ **-ʔwVʔt* ‘to climb’ > Mk *weʔt* • Ni *βáʔt* • PCh **[ʔi]ʔwúʔt* • PW **[t]ʔwúʔt* ~ **[t]ʔwúʔt*
- (46) PM **(X_{13on}-)xaʔχ*, **(X_{13on}-)xáh-ajʰ* ‘night’ > Mk *<na>xaʔχ* • Ni *<xon>faʔx*, *<xon>faʔx-aj* • PCh **<ʔa>h<n>áh* ~ **<ʔá>h<n>áh* • PW **<hon>aχ*, **<hon>áh-ajʰ*
- (47) PM **xnáwáʔp* ‘spring’ > Mk *xinawaʔp* • Ni *fnabáʔp* ~ *fnâbáʔp* • PCh **náwop* • PW **xnáwop*
- (48) PM **t-ʔsxaʔn* ‘meat’ > Mk *t-ʔeseʔn* • Ni *t-ʔasxaʔn* • PCh **t-ʔisáʔn* • PW **t-ʔisaʔn*

There are also a few exceptions.

- (49) PM $*(-)\phi\acute{e}t\acute{a}^{\prime}ts$ ‘root’ > Mk *fitets* • Ni $-\phi\acute{e}t\acute{a}^{\prime}s$ • PCh $*-hw\acute{e}tus$ • PW $*(-)x^w\acute{e}tes$
- (50) PM $*\phi ts-u^{\prime}k$ ‘palm (*Copernicia alba*)’ > Mk *fits-uk* • Ni $\phi ts-u^{\prime}k$ • PCh $*hwis<\acute{u}k>$ • PW $*x^wits<uk^w>$
- (51) PM $*-ti^{\prime}t$ ‘to spin, to sew’ > Mk $[ji]ti\acute{t}$ • Ni $ti^{\prime}t$ • PCh $*[j]<\acute{a}>ti\acute{t}$
- (52) PM $*-\acute{u}^{\prime}p$, $*-\acute{u}p-its$ ‘nest’ > Mk 3 $t-up$ (-its) • Ni $-u^{\prime}p$, $-up-is$ • PCh $*-\acute{u}p$ ($*-is$) • PW $*-t-\acute{u}p$ ($*-is$)
- (53) PM $*-w\acute{a}^{\prime}k$ ‘bad mood’ > Mk $-wak$ • Ni $-\beta\acute{a}^{\prime}k$ • PCh $*-w\acute{á}k$ • PW $*-w\acute{á}k^w$
- (54) PM $*?a^{\prime}nqo^{\prime}k$ ‘paralytic’ > Mk *onqok* • Ni $?a^{\prime}nko^{\prime}k$

The coda $*-?j$ is reflected as *j* in Maká.

- (55) PM $*ti^{\prime}j$ ‘to weave’ > Mk *tij* / $-tj$ • Ni $ti^{\prime}j$
- (56) PM $*t^{\prime}\acute{a}^{\prime}j$ ‘to sound, to have voice’ > Mk $t^{\prime}aj$ • Ni $t^{\prime}\acute{a}^{\prime}j$
- (57) PM $*[t]wha^{\prime}j\acute{a}^{\prime}j$ ‘to marry’ > Mk $[te]whe^{\prime}je-j$ • Ni $[t]xa^{\prime}ja^{\prime}j$ • PCh $*[t^{\prime}]hwa^{\prime}j\acute{e}<j?>$ • PW $*[t]wh\acute{a}je<j>$

6.1.7 Glottal insertion in monosyllables

In some cases, word-final glottal stops in Maká appear not to reconstruct to Proto-Mataguayan, as evidenced by the Lower Bermejeño Wichí cognates (where no glottal stop is found). We suggest that Maká underwent $?$ -epenthesis in roots of the shape (C)V (shared with Nivačle, see §7.1.1.9).

- (58) PM $*-e$, $*-\acute{e}-l$ ‘thorn’ > Mk 3 $t-i?$ • Ni $-e?$ (-k) • PCh 3 $*hl-\acute{e}?$ ($*-l$) • PW $*-t-e$
- (59) PM $*-k^{\prime}u$, $*-k^{\prime}u-l$ ‘horn, club’ > Mk $-k^{\prime}u?$ (-l) • Ni $-k^{\prime}u?$ (-k) • PCh $*-k^{\prime}u?$ ($*-l$) • PW $*-k^{\prime}u$, $*-k^{\prime}u-l^h$
- (60) PM $*[ji]m\acute{a}$ ‘to sleep’ > Mk $[i]ma?$ • Ni $[ji]m\acute{a}?$ • PCh $*[?i]m\acute{a}?$ • PW $*[?i]m\acute{a}$
- (61) PM $*-?i$ ($*-l$) ‘liquid, juice’ > Mk 3 $t-i?$ (-l) • Ni $-?i?$ (-k) • PCh $*-?i?$ ($*-l$) • PW $*-t-?i$ ($*-l^h$)

6.1.8 Fricative + $*\chi$

In Maká, Proto-Mataguayan clusters of the shape “fricative + $*\chi$ ” have lost the uvular fricative.

- (62) PM *- $\phi\chi\acute{u}x$, *- $\phi\chi\acute{u}$ -ts ‘finger’ > Mk -*flux* • Ni - $\phi\chi ux$, - $\phi\chi u$ -s ‘toe’ • PCh *-*hwu-ké?* • PW *- $x^w\acute{u}x^w$, *- $x^w\acute{u}$ -s
- (63) PM * $ké\acute{t}\chi a$ -ju[?]k, * $ké\acute{t}\chi a$ -jku-j^b ‘red quebracho’ > Mk *ke\acute{t}e-jku-* • Ni *t\acute{f}e\acute{t}\chi a*-juk, *t\acute{f}e\acute{t}\chi a*-ku-j • PCh **ké\acute{h}la*-juk / **ké\acute{h}la*-jku- • PW * $k^j\acute{e}t$ -juk^w, * $k^j\acute{e}t$ -k^ju-j^b
- (64) PM * $tá\chi\chi an$ ‘to thunder’ > Mk *texen* • Ni *ta\acute{f}\chi en* • PW * $t^j\acute{a}\chi an$
- (65) PM *- $\acute{z}ás\chi a^j n$, *- $\acute{z}ás\chi an$ -its ‘meat’ > Mk - $\acute{z}ese^j n$, - $\acute{z}esen$ -its • Ni -($\acute{z}a$)*sxa^j n*, -($\acute{z}a$)*sxa*-is • PCh *- $\acute{z}isá^j n$, *- $\acute{z}isán$ -is • PW *- t^j - $\acute{z}isa^j n$, *- t^j - $\acute{z}isán$ -is

As a result, clusters such as $f\chi$, $\acute{t}\chi$, $s\chi$, $x\chi$, $\chi\chi$ are synchronically illicit in Maká (Gerzenstein 1989: 60–61).

6.1.9 Other consonant clusters

Word-initially, the following consonant clusters are synchronically licit in Maká: *ph*, *tsx*, *tsh*, *kh*, *qh*, *k^w*, *hw*, *\acute{t}w* (Gerzenstein 1989: 58). Other consonant clusters reconstructed for PM have been mostly resolved by means of an epenthetic *i*. We have identified examples involving PM * ϕts , * nj , * nx , * st , and * xn .

- (66) PM * ϕts -u[?]k ‘palm (*Copernicia alba*)’ > Mk *fits-uk* • Ni ϕts -u[?]k • PCh **hwis*< $\acute{u}k$ > • PW * x^w its< $\acute{u}k^w$ >
- (67) PM * η - $xá\acute{t}e?$ (*-l) $\overset{?}{\sim}$ * η - $xá\acute{t}i?$ ‘dream, sleepiness’ > Mk -*nixati?* (-l) • Ni *nxá\acute{t}e* (-k) • PCh * $\acute{z}ihná\acute{t}i?$ • PW **nahá\acute{t}i*¹
- (68) PM * $\acute{z}n\acute{a}n\acute{x}te?$ ‘tapeti rabbit, cavy’ > Mk *nijaxti?* • Ni *nánxate* • PCh * $\acute{z}n\acute{á}h\acute{a}te?$ • PW * $xn\acute{á}te$
- (69) PM * $sténi(?)$ ‘white quebracho’ > Mk *sitin-u^k* • PCh * $\acute{z}sténi?$ • PW * $\acute{z}isté^j nih$
- (70) PM * $xn\acute{á}w\acute{a}^j p$ ‘spring’ > Mk *xinawa^j p* • Ni *fn\acute{a}\beta\acute{a}p* ~ *fn\acute{a}\beta\acute{a}p* • PCh **náwop* • PW * $xn\acute{á}wop$

Maká also employs *e*-epenthesis to resolve stem-initial clusters whose first member is a non-nasal sonorant.

- (71) PM *(-)l*k\acute{a}(?)\acute{t}* ‘nasal mucus, cold’ > Mk -*leke(?)\acute{t}* • PCh **ké\acute{t}* • PW * $k^j\acute{e}t$ -*ta\chi*, * $k^j\acute{e}t$ -*ta*-s

¹Synchronically, Mk -*nixati?* is a relational stem, meaning that the sequence -*nix*- is in fact found in word-medial position in this noun. The epenthesis of *i* must thus have occurred at a stage when -*nixati?* was still an absolute stem, as are its cognates in other Mataguyan languages.

- (72) PM **lkéte* ‘squash’ > Mk *lekiti* • PCh **kéte?*
 (73) PM *-[?]*włi?* ~ *-[?]*włi?*, *-[?]*włi-ts* ‘rib’ > Mk -[?]*weti?* (-*ts*) • Ni -[?]*βti* / -*βti?* (-*s*) • PCh *-*hlí<s>*

Word-internally, many more clusters are allowed (Gerzenstein 1989: 59–63). Nevertheless, there are several gaps, and some of them likely result from sound changes specific to certain clusters, such as PM **l?* > Mk *l*, PM **s’w* > Mk *sV?*, and PM *([?])*wt* > Mk *t*. Most of these PM clusters are reconstructed based on evidence from Nivačle.

- (74) PM *-*φāl?u?* (*-*ts*) ‘son-in-law, brother-in-law’ > Mk -*felu?* (-*ts*) • Ni -*φakl?u* (-*s*) ‘brother-in-law’ • PCh *-*hwílu?* ~ -*hwélu?* (*-*s*) ‘son-in-law’
 (75) PM *[*ji*]*s’wun* ~ *[*ji*]*s’wún* ‘to like, to love’ > Mk [*ji*]*su?un* • Ni [*ji*]*s’βun* • PCh *[*i*]*s’ún*
 (76) PM *-*łi’wte?* ‘heart’ > Mk -*titi?* • Ni -*łi’βte*

At least one of these changes – PM *([?])*wt* > Mk *t* – has resulted in a synchronically active alternation in Maká, whereby the syncopated allomorph of the reflexive prefix *-wet-* is *-t-* rather than *-*wt-* (Gerzenstein 1994: 114), as shown in (77).

- (77) a. Ø-*wet-xili-nen-łe*
 3-REFL-dirty-CAUS-REFL
 ‘s/he soils herself/himself’
 b. *łe-wet-xili-nen-łe* ~ *łe-t-xili-nen-łe*
 2.ACT-REFL-dirty-CAUS-REFL
 ‘you soil yourself’

In some cognate sets, **mt* and **mq* appear to have yielded *nt* and *nq* in Maká. It is uncertain whether this sound change is regular, as the sequences *mt* and *mq* are synchronically licit in Maká, as in *somtaχ* ‘kind of fruit (*Harrisia bonplandii*)’, *jamqaχ* ‘buff-necked ibis (*Theristicus caudatus*)’. However, words that contain them tend to lack a known Mataguayan etymology.

- (78) PM **sámto?* ‘foreigner’ > Mk *sonto?* • Ni *samto*
 (79) PM **samto’k* ~ **samtó’k* ‘bamboo’ > Mk *sonto’k* • Ni *samto’k*
 (80) PM **wá’mqâ?* ‘to wash oneself’ > Mk *wa’nqa?* • Ni *βâmqâ?* / -*βâ’mqâ*

6.1.10 Syllabic consonants

In Maká, the syllabic consonants of Proto-Mataguyan evolve in the same way as the syllables of the structure **Ca* or **Cä*: they yield *Ce*, with the vowel harmonizing to *a* or *o* if the next syllable contains a low vowel. This includes the third-person possessive and the second-person active realis prefixes (PM **t̥-* before consonants), the third-person active irrealis prefix (PM **ŋ-* before consonants), and the third-person T-class realis prefix (PM **t̥-* before consonants).

(81) Maká (Gerzenstein 1994: 85, 148)

- a. *ʎe-k'inix*
3.POSS-younger_brother
'his/her younger brother'
- b. *ʎe-fejejki?*
2.ACT-rotate
'you rotate'
- c. *ne-t-fejejki?*
3.ACT.IRR-3T-sleep
'(that) s/he rotate'
- d. *te-fejejki?*
3T-rotate
's/he rotates'

6.2 Vowels

6.2.1 Maká vowel shift

A notable sound change involving vowels in Maká is the vowel shift, whereby PM **e* changed to Mk *i* (thus merging with PM **i* > Mk *i*), PM **a* and **ä* changed to Mk *e*, and PM **á* changed to Mk *a* in most positions.

This shift must have occurred at a relatively late date, since earlier registers of Maká (co-)dialects often show <a> and <e> where contemporary Maká has <e> and <i>, respectively. In the following examples, forms marked as “Towothli” are from Barbroke Grubb’s data collected in 1913 (cited *apud* Hunt 1915); those marked as “Enimagé”, “Guentusé”, and “Lengua” are from Aguirre (1793) (cited *apud* Peña 1898).

- (82) Towothli <hual> > modern Maká *xuwel* ‘moon’
 (83) Towothli <sahat> > modern Maká *sehets* ‘fish’
 (84) Guentusé <sèhà>, Lengua <saha>, Towothli <saha> > modern Maká *sehe?* ‘earth’
 (85) Towothli <hutan> > modern Maká *h-uten* ‘I hate’
 (86) Towothli <wotak> > modern Maká *wote-k* ‘achiote tree’
 (87) Enimagá <egualé>, Lengua <gualé>, Towothli <iwali> > modern Maká *iweli?* ‘water’
 (88) Towothli <witlapinak> > modern Maká *wit-lepin-ek* ‘salt’
 (89) Towothli <heköf> > modern Maká *xikaf* ‘fan’
 (90) Towothli <selel> > modern Maká *ts'ilil* ‘bee sp.’
 (91) Towothli <peno> > modern Maká *pinu?* ‘bee sp.’
 (92) Towothli <oita> > modern Maká *ute* ‘stone’

6.2.1.1 PM *e, *i > Mk i

The following examples show that PM *e changed to Mk i, except before the uvular fricative *χ (see §6.2.1.4 on the vowel development before *χ).

- (93) PM *-áse? ‘daughter’ > Mk *-asi?* • Ni *-áse* • PCh **-áse?* • PW **-t-áse*
 (94) PM *-e, *-él ‘thorn’ > Mk 3 *t-i?* • Ni *-e?* (-k) • PCh 3 **hl-é?* (*-l) • PW **-t-e*
 (95) PM *-éj (*-its) ‘name’ > Mk *-ij* (-its) • Ni *-ej* (-is) • PCh **-éj?* (*-is) • PW **-t-éj* (*-is)
 (96) PM *-ej^h ‘APPL:DISTAL’ > Mk *-ij* • Ni *-ej* • PCh **-ej^h* • PW **-ej^h*
 (97) PM **[j]ékphaʔx* ‘to bite’ > Mk *[j]ikfeʔx* • PCh **[j]ókwha* • PW **[j]ók^waχ*
 (98) PM **(-)φeʔek* ~ **-éte-* ~ **-eʔé-* ‘mortar’ > Mk *(-)fiʔik* • Ni *-φeʔetf* • PCh **(-)hwVhlek* • PW **x^wéteq*
 (99) PM **(-)φétäʔts* ‘root’ > Mk *fitets* • Ni *-φetaʔs* • PCh **-hwétus* • PW **(-)x^wétes*
 (100) PM **(-)háqke?* ‘well’ > Mk *haqqi?* ‘river’ • Ni *-xáke* ‘dry well’ • PCh **-hááke?* ‘artificial well’
 (101) PM **[ji]kén* ‘to send’ > Mk *[j]<u>kin* • Ni *[ji]tʃen* • PCh **[ʔi]kén* • PW **[ʔi]k^jén*
 (102) PM **-ke?* (*-j^h) ‘feminine’ > Mk *-ki?* (-j) • Ni *-tʃe / -ke* (-j) • PCh **-ke?* (*-j^h) • PW **-k^je* (*-j^h)

- (103) PM **-kʰe(?)* (**-j^h*) ‘ear’ > Mk *-kʰi?* (*-j*) • Ni *-kʰe?* (*-j*) • PW **(t-)k^we<j>* / **(t-)k^we-* ‘arm, hand’
- (104) PM **-kⁱ’áxe?* (**-l*) ‘arrow’ > Mk *-qaxi?* (*-l*) • Ni *-kⁱ’áxe* • PCh **-kⁱ’áhe?* (**-l*) • PW **-kⁱ’áhe* (**-l^h*)
- (105) PM **kⁱ’unhate-nha?* ‘pacu fish’ > Mk *<i>kⁱ’unheti-nhe?* (*-j*) • Ni *kⁱ’unxate<nxa>* (*-j*)
- (106) PM **látsen-u⁷k* ‘chañar plant’ > Mk *<xu>letsin-u⁷k* • PCh **léseni-k* • PW **létsen-uk^w*
- (107) PM **-léts* ‘offspring’ > Mk *-lits* • Ni *-k^les* • PCh **-lés* • PW **-lés*
- (108) PM **[ji]lé²x* ‘to wash’ > Mk *[ji]lix-u?* ‘to clean’ • Ni *[ji]k^lé²f* • PCh **[ʔi]léh* • PW **[ʔi]léχ*
- (109) PM **lkéte* ‘squash’ > Mk *lekiti* • PCh **kéte?*
- (110) PM **(-)lé^(?)t* ‘firewood’ > Mk *lit<u?* • PCh **-<ʔa>hlét ~ *-<ʔa>hlét* • PW **-lé^t*
- (111) PM **-tⁱ’wte?* ‘heart’ > Mk *-titi?* • Ni *-tⁱ’βte*
- (112) PM **me(?)* ~ **mé(?)* ‘otter’ > Mk *mi?* • Ni *me?* • PCh **mé?*
- (113) PM **⁷njánxte?* ‘tapeti rabbit, cavy’ > Mk *nijaxti?* • Ni *nánxate* • PCh **⁷náhâte?* • PW **^xnáte*
- (114) PM **[ji]pé⁷j-a?* ‘to hear’ > Mk *[ji]pi⁷j-e?* • Ni *[ji]pe⁷j-a* • PCh **[ʔi]pé⁷j-a?*
- (115) PM **pé^la(?)j*, **pé^laj-its* ‘rain’ > Mk *pi^lej (-its)* • PCh **pé^laj?* • PW **pé^laj^h*, **pé^laj-is*
- (116) PM **-pxúse?* (**-j^h*) ‘beard’ > Mk *-<a>pxusi?* (*-j*) • Ni *-páse (-j)* • PCh **-púse?* (**-j^h*) • PW **-páse* (**-j^h*)
- (117) PM **[ji]selán* ‘to spank’ > Mk *[j]<eq>silan* ‘to spank’ • PCh **[ʔi]selán* ‘to store’; **[ʔi]selán-eh* ‘to prepare’
- (118) PM **sténi(?)* ‘white quebracho’ > Mk *sitin-u⁷k* • PCh **⁷sténi?* • PW **⁷isté⁷nih*
- (119) PM **-tátse?* (**-j^h*) ‘eyelash’ > Mk *-tetsi?* (*-j*) • Ni *-tátse (-j)* • PCh **-táse?* (**-j^h*)
- (120) PM **-t(á)ko-se?* (**-j^h*) ‘eyebrow’ > Mk *-tko-si?* (**-j*) • PCh **-tóko-se?* (**-j^h*) • PW **-tá^k’o-se* (**-j^h*)
- (121) PM **-tⁱ’é-l* ‘tears’ > Mk *-tⁱ’i-l* • Ni *-tⁱ’e<k^l>-is* • PCh **-tⁱ’é<l>-is*
- (122) PM **[ji]tⁱ’ex* ‘to say’ > Mk *[ji]tⁱ’ix* • Ni *[ji]tⁱ’ef*
- (123) PM **-tⁱ’ile?* (**-j^h*) ‘rheum’ > Mk *-tⁱ’ili?* (*-j*) • Ni *-tⁱ’ik^lle (-j)* • PCh **-tⁱ’ile-*

- (124) PM **wapen* ~ **wäpen* ‘to be ashamed’ > Mk *wepin* • Ni *βapen*
- (125) PM *(*ʔ*)*wåseʔ* ‘cloud’ > Mk *wasiʔ* • Ni *βåseʔ*
- (126) PM **wäleʔk* ‘to walk’ > Mk <-i> *welki-ʔmet* ‘to limp’ • Ni *βaklēʔtf* • PCh **[ʔi]ʔwélek* • PW **ʔweleq*
- (127) PM **wéʔt=aʔ* ‘one’ > Mk <e> *wiʔt-eʔ* • Ni *βéʔt<a>* / -*ʔβéʔt<a>*
- (128) PM **-xéleʔ* ‘dirt’ > Mk *-xiliʔ* • Ni *-feklē*
- (129) PM **ʔåf̄teʔl* ‘orphan’ > Mk *aftiʔl* • Ni *ʔåf̄teʔk*
- (130) PM **[j]éjxâts-han* ‘to teach’ > Mk *[j]ixats<hen>* • Ni *[j]ejxats-xan* / -*ʔejxats-xan* • PCh **[j]éjâhâs<an>*

The only instance of an irregular reflex is given below.

- (131) PM **xéjâʔ* (*-l) ‘bat’ > Mk *xajaʔ* (-l) • Ni *fejâ* (-k) • PCh **<ʔa>héjaʔ* (*-l)

For examples of PM **i* being retained as Mk *i*, see §3.1.

6.2.1.2 PM **a*, **ä* > Mk *e*

Both PM **a* and **ä* normally changed to Mk *e* (except before the uvular fricative **χ*, for which see §6.2.1.4, and before syllables that contain Mk *a* or *o*, on which see §6.2.1.5). Note that these two phonemes also merged in Nivaçle (§7.1.2). The following examples show the development of PM **a*.

- (132) PM *-(*á*)*j^h* ‘PL’ > Mk -(*e*)*j* • Ni -(*a*)*j* • PCh *-(*á*)*j^h* • PW *-(*á*)*j^h*
- (133) PM *-(*á*-*j^h*)-*xiʔ* (*-l) ‘mouth’ > Mk -*e<xiʔ>* (-l) • Ni -*a<fi>* (-k) • PCh (?) **-á<ajʔ>* • PW **-t-áj-hi* (*-l^h)
- (134) PM **-áʔ* (*-j^h) ‘fruit’ > Mk 3 *t-eʔ* (-j) • Ni -*aʔ* (-j) • PCh 3 **hl-áʔ* (*-j^h) • PW **-t-áʔ* (*-j^h)
- (135) PM **[j]ékφaʔx* ‘to bite’ > Mk *[j]ikfeʔx* • PCh **[j]ókwah* • PW **[j]ók^waχ*
- (136) PM **-φah*, **-φa-ts* ‘companion’ > Mk -*fe* (-ts) • Ni -*φa* (-s) • PCh **-hwah*, **-hwa-s* • PW **-x^wah*, **-x^wa-s*
- (137) PM **-φájiʔx* ‘right’ > Mk -*fejiʔx* ‘left’ • Ni -*φajiʔf* • PCh **-hwíjah*
- (138) PM **-φá-ʔmat* ‘disease’ > Mk <eq> *fe-ʔmet* • Ni -*φa-ʔmat* • PCh **-hwá-ʔmat*
- (139) PM **φaʔt* ~ **φáʔt* ‘fire’ > Mk *feʔt* • PCh **hwát*
- (140) PM **[ji]φáʔx* ‘to cut down’ > Mk *fex-inet-kiʔ* ‘ax’ • Ni *[ji]φaʔf* • PCh **[ʔi]hwáh-APPL* • PW **[ʔi]x^wáχ*

- (141) PM **jijá*'ts 'dew' > Mk *ije*'ts • Ni *jija*'s • PCh **ʔijés-tah* • PW **ʔijás*
- (142) PM *-*kat* 'collective of plants' > Mk *-ket* • Ni *-tʃat / -kat* • PCh *-*kat* • PW *-*kʲat* (*-*at* after **k^w*, **q*)
- (143) PM **kéʎa-ju*'k, **kéʎa-jku-j^h* 'red quebracho' > Mk *keʎe-jku-* • Ni *tʃéʎa-juk, tʃéʎa-ku-j* • PCh **kéhla-juk / *kéhla-jku-* • PW **kʲéʎ-juk^w*, **kʲéʎ-kʲu-j^h*
- (144) PM *-*kíʃah*, *-*kíʃa-ts* 'neighbor' > Mk *-kife (-ts)* • Ni *-tʃiʃa (-s)* • PCh *-*kíhwah*, *-*kíhwa-s*
- (145) PM **kʲunhate-nha?* 'pacu fish' > Mk <*i*>*kʲunheti-nhe?* (-*j*) • Ni *kʲunxate<nxa>* (-*j*)
- (146) PM **lama(h)* ~ **läma(h)* (*-*m*) 'to be smooth' > Mk *le:me, leme-m* • Ni *k̄lama<m>*
- (147) PM *(-)*ʎa?*, *(-)*ʎá-ts* 'louse' > Mk <*ij*>*ʎe?*(-*ts*) • Ni *-ʎa?*(-*s*) • PCh *-*hlá?*(*-*s*) • PW **ʎa?*
- (148) PM **ma* 'interrogative particle' > Mk *me* • PCh **ma*
- (149) PM *-*ʔmat* 'negative quality, physical defect' > Mk *-ʔmet* • Ni *-ʔmat* • PCh *-*ʔmat*
- (150) PM *-*na*'x ~ *-*ná*'x / *-*nxa-* ~ *-*nxá-* 'nose' > Mk *-ne*'x / *-nxe-* • Ni *-na*'ʃ, *-nʃa-s* • PCh *-*hná<tVwoh>* • PW *-*nh<us>*
- (151) PM **ʔnátu(h)*, **ʔnátu-ts* 'day, world' > Mk *neʎu (-ts)* • Ni *naʎu (-s)* • PCh **ʔnáhl<ekis>* ~ **ʔnáhl<ekes>* 'midday'
- (152) PM **péʎa(ʔ)j*, **péʎaj-its* 'rain' > Mk *piʎej (-its)* • PCh **péhlaʎ?* • PW **péʎaj^h*, **péʎaj-is*
- (153) PM **qa* 'in order to' > Mk *qe* • Ni *ka* • PCh **qa*
- (154) PM *[*t*]*qánhan* 'to fish with a hook' > Mk [*ta*]*<qa>qanhen* • PCh **[tʔ]qáhnhan* • PW **[t]qánhan*
- (155) PM **tana(h)* ~ **tána(h)* 'standing, vertical' > Mk *te:ne, tene-m* • Ni *tana*
- (156) PM **táxʎan* 'to thunder' > Mk *texen* • Ni *taʃxen* • PW **tʲáʎan*
- (157) PM **tsóʃa-ta-(ju)*'k 'shrub (*Lycium americanum*)' > Mk *tsofe-te-k* • Ni *tsoʃ-ta-juk* • PW **tsóx^wa-t-uk^w*
- (158) PM **wák'a-ju*'k, **wák'a-jku-j^h* 'guayacán' > Mk *wek'e-ju*'k, *wek'e-jkw-i* • PCh **wák'a-juk*, **wák'a-jku-j^h* • PW **wák^j'a-juk^w*, **wák^j'a-kʲu-j^h*
- (159) PM **xunxátaʎ* 'tusca fruit' > Mk *xunxetaʎ* • Ni *xunʃataʎ* • PCh **ʔihnátah* • PW **xnhátah*

- (160) PM **xunxáta-(ju)ʔk* ‘tusca tree’ > Mk *xunxete-ʔk* • Ni *xunfata-juk* • PCh **ʔihnáta-k* • PW **xnháte-q*
- (161) PM **xunxáta-kat* ‘tusca grove’ > Mk *xunxete-ket* • Ni *xunfata-tfat* • PCh **ʔihnáta-kat*
- (162) PM **ʔaφu* ~ **ʔaφú* ‘woman’ > Mk *efu* • PCh **ʔahwúʔ*
- (163) PM **ʔáxaʔ* ‘stork’ > Mk *exeʔ* ‘maguari stock’ • PCh **ʔáhaʔ* ‘jabiru’
- (164) PM **ʔánhajeχ* ‘wild bean (*Capparis retusa*)’ > Mk *anhejaχ* • Ni *ʔánxajex* • PCh **ʔóhnajah* • PW **ʔánhjaχ*
- (165) PM **-ʔäsχaʔn*, **-ʔäsχán-its* ‘meat’ > Mk *-ʔeseʔn*, *-ʔesen-its* • Ni *-(ʔa)sxaʔn*, *-(ʔa)sxan-is* • PCh **-ʔisáʔn*, **-ʔisán-is* • PW **-t-ʔisaʔn*, **-t-ʔisán-is*
- (166) PM **ʔéjaʔ* (*-l) ‘mosquito’ > Mk *ijeʔ* (-l) • Ni *jijaʔ* • PCh **ʔéjaʔ* (*-l)
- (167) PM *ʔ[j]éjxâts-han ‘to teach’ > Mk [j]ixats<hen> • Ni [j]ejxats-xan / -ʔejxats-xan • PCh *ʔ[j]éjâhâs<an>
- (168) PM *ʔVláʔah, *ʔVláʔa-ts ‘lesser grison’ > Mk *ile* • Ni *ʔakláʔa* (-s) • PCh *ʔeláʔah, *ʔeláʔa-s ~ *ʔaláʔah, *ʔaláʔa-s • PW *ʔiláʔah

Only two examples instantiate what seems to be an irregular reflex of PM **a* in Maká: *a* in (169) and *i* in (170).

- (169) PM **ʔkʔa* ‘new’ > Mk *iʔnkʔa* • Ni *nitʔa* • PCh **ʔkʔáʔ* • PW **nekʔa* ~ **nékʔa* ~ **nekʔe* ~ **nékʔe*
- (170) PM **tsʔatsʔih*, **tsʔatsʔi-l* ‘rufous hornero’ > Mk *tsʔitsʔi* (-l) • Ni *tsʔatsʔi* (-k) • PCh **sátʔih* • PW **tátsʔi*

The following examples show the development of PM **ä*.

- (171) PM **-äφ*, **-φä-ts* ‘wing’ > Mk 3 *ʔ-ef*, *ʔe-fe-ts* • Ni *-aφ*, *-<a>φa-s* • PCh **-hw<és>* • PW **-ʔex^w*
- (172) PM **n-äk* ‘to come’ > Mk *n-ek* • Ni *n-atf* • PW **n-eq*
- (173) PM **[j]án* ‘to put’ > Mk [j]en-APPL • Ni [j]an • PCh **[j]én* • PW **[j]én*
- (174) PM **[ji]φäl* ‘to tell’ > Mk *n(i)-fel-im* • Ni *n(i)-φak* / *n(i)-φakl-* • PCh **[ʔi]hwél* • PW **[ʔi]x^{wélh}* / **[ʔi]x^{wél-}*
- (175) PM **-φälits* ‘daughter-in-law, sister-in-law’ > Mk *-felits* • Ni *-φaklīs<ʔa>* ‘sister-in-law’ • PCh **-hwélis* ‘daughter-in-law’

- (176) PM **-φάλʔuʔ* (*-ts) ‘son-in-law, brother-in-law’ > Mk *-feluʔ* (-ts) • Ni *-φακίʔu* (-s) ‘brother-in-law’ • PCh **-hwíluʔ* ~ *-hwéluʔ* (*-s) ‘son-in-law’
- (177) PM **(-)φétäʔts* ‘root’ > Mk *fitets* • Ni *-φetaʔs* • PCh **-hwétus* • PW **(-)xʷétes*
- (178) PM **[ji]kʔán* ‘to stretch out’ > Ni *[ji]tʃʔan* • PCh **[ʔi]kʔén-APPL* • PW **[hi]kʔén*
- (179) PM **[ji]kʔásaʔχ* ~ **[ji]kʔáseʔχ* ‘to divide’ > Mk *[j]<a>kʔesaʔχ* • PCh **[ʔi]kʔésah* • PW **[hi]kʔésaχ*
- (180) PM **látsen-uʔk* ‘chañar plant’ > Mk *<xu>letsin-uʔk* • PCh **léseni-k* • PW **lésen-ukʷ*
- (181) PM **(-)lkä(ʔ)ʔ* ‘nasal mucus, cold’ > Mk *-leke(ʔ)ʔ* • PCh **két* • PW **kʔét-taχ*, **kʔét-ta-s*
- (182) PM **mät* ‘hither, nearby’ > Mk *met* ‘nearby’ • PCh **mét* ‘hither’
- (183) PM **[ji]nxiʔwän* ‘to smell’ > Mk *[ji]nxiʔwen* • PCh **[ʔi]hniʔwen*
- (184) PM **-táwäʔx*, **-táwxäʔts* ‘(abdominal) cavity’ > Mk *-taweʔx*, *-tawxe-ts* • Ni *-täβaʔʃ*, *-täβxa-s* • PCh **-tóweh* • PW **-tóweχ*
- (185) PM **tänúk* (*-its) ‘feline’ > Mk *tenuk* (-its) • Ni *tanuk* (-is) • PCh **tinúk* (*-is)
- (186) PM **wäk* ‘all’ > Mk *we:k* • Ni *-βatʃ* • PCh **-wek* • PW **-weq*
- (187) PM **ʔwäleʔk* ‘to walk’ > Mk *-<i>ʔwelki-ʔmet* ‘to limp’ • Ni *βakíeʔtʃ* • PCh **[ʔi]ʔwélek* • PW **ʔweleq*
- (188) PM **[ji]ʔwän* ‘to see’ > Mk *[ji]ʔwen* • Ni *[ji]ʔβan* • PCh **[ʔi]ʔwén* • PW **[hi]ʔwén*
- (189) PM **-ʔwät* ‘place’ > Mk *-ʔwet* • Ni *-ʔbat* • PCh **-ʔwét* • PW **-ʔwet*
- (190) PM **[t]ʔä(ʔ)k* ‘to eat (intr.)’ > Mk *[t]ʔek* • PW **[t]ʔeq*
- (191) PM **ʔomhatäk* ~ **ʔomhätäk* ‘queen palm fruit’ > Mk *omhetek* • Ni *ʔomxatatʃ*
- (192) PM **-ʔäsχaʔn*, **-ʔäsχán-its* ‘meat’ > Mk *-ʔeseʔn*, *-ʔesen-its* • Ni *-(ʔa)sxaʔn*, *-(ʔa)sxan-is* • PCh **-ʔisáʔn*, **-ʔisán-is* • PW **-tʔisaʔn*, **-tʔisán-is*

Finally, in the following examples in absence of diagnostic cognates from Chorote and Wichí it is impossible to decide between the reconstruction of PM **a* or **ä*.

- (193) PM **[n]aʔʔ* ~ **[n]äʔʔ* ‘to burn’ > Mk *[n]eʔʔ-xuʔ* • Ni *[ji]<n>-aʔʔ*

- (194) PM **-ata(°)x* ~ **-ä-* ‘food’ > Mk *-ete(°)x* • Ni *-ataf*
- (195) PM **fánha?* ~ **fänha?* (**-j^h*) ‘locust’ > Mk *<e>fenhe?* (*-j*) • Ni *fanxa (-j)*
- (196) PM **fäxi(°)j* ~ **fäxi(°)j* ‘green ameiva’ > Mk *fexij* • Ni *fafij*
- (197) PM **[t]k’an* ~ **[t]k’än* ‘to obey’ > Mk *[te]k’en* ‘to respect’ • Ni *[t(a)]t’an*
- (198) PM **lama(h)* ~ **läma(h)* (**-m*) ‘to be smooth’ > Mk *le:me, leme-m* • Ni *k̄lama<m>*
- (199) PM **ma’la’l* ~ **-ä-* ‘agile’ > Mk *me’le’l* ‘to move’ • Ni *mak̄la’k*
- (200) PM **(-)nawan* ~ **-ä-* ‘hook’ > Mk *newen* • Ni *-naβan*
- (201) PM **qapa(°)p* ~ **-ä-* ‘dwarf’ > Mk *qep<ep>e(°)p* • Ni *kapap* ‘dwarf dog’
- (202) PM **-sa’x* ~ **-sä’x* ‘leaf’ > Mk 3 *te-se’x* • Ni *-sa’f*
- (203) PM **tana(h)* ~ **täna(h)* ‘standing, vertical’ > Mk *te:ne, tene-m* • Ni *tana*
- (204) PM **tsaqaq* ~ **-ä-* ‘plant sp.’ > Mk *tseqaq* • Ni *tsakak*
- (205) PM **waφ* ~ **wäφ* ‘to be tired, to die’ > Mk *[ji]wef* • Ni *βαφ*
- (206) PM **ʔathajex* ~ **ʔäthäjex* ‘molle fruit’ > Mk *athejax* • Ni *ʔätxajex*

6.2.1.3 PM **ä* > Mk *a*

The following examples show that PM **ä* changed to Mk *a*, with very few exceptions.

- (207) PM **[j]äφti(°)t* ‘to spin’ > Mk *[j]afti(°)t* • Ni *[j]äφti*
- (208) PM **n-ájin* ‘to go first’ > Mk *[wa]<th>ajin* • Ni *n-ájin* • PCh **[ʔi]<n>ájin*
- (209) PM **h-ák* ‘I go away’ > Mk *h-ak* • Ni *x-ák* • PCh **ʔák*
- (210) PM **n-ám* ‘to arrive’ > Mk *n-am* • Ni *n-am* • PCh **n-ám* • PW **<n>ám*
- (211) PM **[t](°)án* ‘to shout’ > Mk (?) *[t]’an* ‘to win’ • Ni *[t]án* • PCh **[t]án* • PW **[t]’án*
- (212) PM **-áni’s* ‘stinger’ > Mk 3 *ʔ-ani’s* • Ni 3 *ʔ-ánis* • PCh 3 **hl-ánis* • PW (?) 3 **ʔ-á’ni*
- (213) PM **-áp* ‘to cry’ > Mk *-ap* • Ni *-ap* • PCh **[j]áp*
- (214) PM **-ápil* ‘to return thither’ > Mk *[w]apil* • Ni *[β]apek* • PCh **[j]ápil* • PW **[j]ápil^h*
- (215) PM **-áq, *-qá-ts* ‘food’ > Mk *-aq, -qa-ts* • Ni *-ák, -ká-s* • PCh **-ák, -qá-s* • PW **-ʔáq, *-qá<s>*

- (216) PM *-á's 'son' > Mk -a's • Ni -á's • PCh *-ás • PW *-ł-ás
- (217) PM *-áse? 'daughter' > Mk -asi? • Ni -áse • PCh *-áse? • PW *-ł-áse
- (218) PM *[n]át ~ *[n]át 'to bleed' > Mk [n]at-xu? • Ni [n]át • PCh *<n>át- • PW *<n>át- ~ *<n>át-
- (219) PM *[j]átsi(?)j 'to spill' > Mk [j]atsij-xu? • Ni [j]átsij
- (220) PM **phinák*, **finhá-j^h* 'tobacco' > Mk *finak*, *finha-j* • Ni *phinák*, *finxá-j*
- (221) PM *(-)háqke? 'well' > Mk *haqqi?* 'river' • Ni -xáke 'dry well' • PCh **-hááke?* 'artificial well'
- (222) PM *[ji]já? 'to drink' > Mk <i>ja? • Ni [ji]já? • PCh *[ʔi]já? • PW *[ʔi]já?
- (223) PM **jixá(?)* ~ **jixá(?)* 'to be true' > Mk *ixa* • Ni *jixá?* • PCh **ʔihá<wet>*
- (224) PM **jiʔixátaχ*, **jiʔixáta-ts* 'ocelot' > Mk *iʔixataχ*, *iʔixate-ts* • Ni *jixátax*, *jixáta-s*
- (225) PM **khat* 'cactus' > Mk *khat-u'k* • Ni *kxat* • PCh **káhát* • PW **k'áhát*
- (226) PM *-k'áxe? (*-l) 'arrow' > Mk -qaxi? (-l) • Ni -k'áxe • PCh *-k'áhe? (*-l) • PW *-k'^jáhe (*-l^h)
- (227) PM *-k'ínxá? [?] ~ *-k'ínxá? (*-wot) 'younger sister' > Mk -k'ínxá? [?] ~ -k'ínxá? • Ni -tʔinxá (-βot) • PCh *-k'ihná? (*-wot) • PW *-k'^jinhá
- (228) PM *[ji]lán 'to kill' > Mk [ji]lan • Ni [ji]klân • PCh *[ʔi]lán • PW *[ʔi]lán
- (229) PM **lattsiki-ju'k* 'willow' > Mk *lattsiki-ju'k* • Ni *klátsiki-juk*
- (230) PM *[ji]tá'm 'to defecate' > Mk <i>ta'm • Ni [ji]tá'm • PCh *[ʔi]hlá'm • PW *[t]<'a>tá'm
- (231) PM *[ji]tán 'to light fire' > Mk [ni]tan-APPL • Ni [ji]tân • PCh *[ʔi]hlán-APPL • PW *[ʔi]tán-APPL
- (232) PM *[ji]má 'to sleep' > Mk [i]ma? • Ni [ji]má? • PCh *[ʔi]má? • PW *[ʔi]má
- (233) PM **máh* 'go!' > Mk *ma* • Ni *má* • PCh **máh* • PW **máh*
- (234) PM *(-)niják, *(-)nijhá-j^h 'rope, cord' > Mk (-)nijak, (-)nijha-j • Ni -niják, -nijá-j • PCh **niják*, **níjhá-j^h* • PW **niják^w*, **níjhá-j^h*
- (235) PM **njánxte?* 'tapeti rabbit, cavy' > Mk *nijaxti?* • Ni *nánxate* • PCh **náhâte?* • PW **náte*
- (236) PM *-pás(-e't) 'lip' > Mk -pas • Ni -pás<e't> • PCh *-pás<at> ~ *-pás<át> • PW *-pás<et>

- (237) PM **phá'm* 'up' > Mk *-pha'm* • PCh **p'há'm* • PW **-phá / *phâm-*
- (238) PM **[t]qánhan* 'to fish with a hook' > Mk *[ta]<qa>qanhen* • PCh **[tʰ]qáhnhan* • PW **[t]qánhan*
- (239) PM **sála(°)l*, **sálal-its* 'middle-sized cicada' > Mk *sala(°)l*, *salal-its* • Ni *sákl<ákl>ák (-is)*
- (240) PM **-sá't* 'vein' > Mk *-<?a>sa't* • Ni *-sá't* • PCh **-sát-* • PW **-sát*
- (241) PM **[ji]selán* 'to spank' > Mk *[j]<eq>silan* 'to spank' • PCh **[ʔi]selán* 'to store'; **[ʔi]selán-eh* 'to prepare'
- (242) PM **sijá(°)χ*, **sijáχ-is* 'fish sp.' > Mk *sija(°)χ*, *sijaχ-its* • Ni *sijáχ (-is)*
- (243) PM **tá't* 'to sprout' > Mk *ta't* • Ni *tá't* • PCh **tát* • PW **tát*
- (244) PM **t'á'j* 'to sound, to have voice' > Mk *t'aj* • Ni *t'á'j*
- (245) PM **tijá'χ* 'to shoot, to throw' > Mk *tija'χ / -tija'χ* • Ni *tijá'x* • PCh **[ʔi]tijáh* • PW **tijáχ*
- (246) PM **t'isá? ~ t'isá? (*-l)* 'cream-backed woodpecker (*Campephilus leucopogon*)' > Mk *t'isa?(-l)* • Ni *t'isá?(-k)* • PCh **t'isá?(-l)*
- (247) PM **tsáháq (*-its)* 'chajá bird' > Mk *tsahaq (-its)* • PCh **sáhák*, **sáháq-es* ~ **sáháq-is* • PW **tsáháq*
- (248) PM **[j]útá(°)χ* 'to be tired' > Mk *-utá(°)χ* 'breath' • Ni *[j]utáχ* • PCh **[j]úhláh*
- (249) PM **-wá'k* 'bad mood' > Mk *-wak* • Ni *-βá'k* • PCh **-wák* • PW **-wák^w*
- (250) PM *(°)*wána'χ*, *(°)*wánha-ts* 'piranha' > Mk *wana'χ*, *wanhe-ts* • Ni *βánax*, *βánxa-s*
- (251) PM *(°)*wá's* 'sky' > Mk *wa's* • Ni *βá's*
- (252) PM *(°)*wáse?* 'cloud' > Mk *wasi?* • Ni *βáse?*
- (253) PM **ʷwánXátáχ*, **ʷwánXátá-ts* 'rhea' > Mk *waatáχ* • Ni *βánxátáχ*, *βánxátá-s* • PCh **ʷwánhláh*, **ʷwánhlá-s* • PW **wá'nłáχ*, **wá'nłá-s*
- (254) PM **xéjâ? (*-l)* 'bat' > Mk *xaja?(-l)* • Ni *fejâ(-k)* • PCh **<?a>héja? (*-l)*
- (255) PM **ʔáφte'l* 'orphan' > Mk *afti'l* • Ni *ʔáφte'k*
- (256) PM **ʔáthajex ~ ʔáthäjex* 'molle fruit' > Mk *athejajex* • Ni *ʔátxajex*
- (257) PM **ʔá'jteχ*, **ʔá'jte-ts* 'to hurt' > Mk *aʔtaχ*, *aʔti-ts* • Ni *ʔá'jtex ~ ʔá'βtex* • PCh **ʔájʔtah-APPL*, **-ʔájʔte-s-APPL* • PW **ʔájtaχ*, **ʔájte-s*

- (258) PM *ʔánhajeχ ‘wild bean (*Capparis retusa*)’ > Mk *anhejaχ* • Ni ʔánxajex • PCh *ʔóhnajah • PW *ʔánhjaχ
- (259) PM *ʔátits ~ *-í- ~ *-e- ~ *-é- ‘wild pepper’ > Mk *atits* • PCh *ʔátés
- (260) PM *-ʔáx (*-íts) ‘skin, bark’ > Mk *-ʔax (-its)* • Ni *-ʔáx (-is)* • PCh *-ʔáh, *-ʔáh-és • PW *-t-ʔáχ, *-t-ʔáh-és
- (261) PM **[j]éjxáts-han ‘to teach’ > Mk *[j]ixats<hen>* • Ni *[j]ejxats-xan / -ʔejxats-xan* • PCh **[j]éjáhás<an>

Only three examples instantiate what seems to be an irregular reflex of PM *á in Maká: *i*’*n* in (262), *e* in (263), and *o* in (264).

- (262) PM *-sáq’ál^h, *-sáq’ál-its ‘soul, spirit’ > Mk (?) *-si’nq’al (-its)* • Ni *-sák’ákł<it>* • PCh *-sáq’ál^h, *-sáq’ál-is
- (263) PM *-tátseʔ(*-j^h) ‘eyelash’ > Mk *-tetsiʔ(-j)* • Ni *-tátse(-j)* • PCh *-tátseʔ(*-j^h)
- (264) PM *tiłá’x ‘to carry on one’s shoulders’ > Mk *tiło’x / -tiło’x* • Ni *tiłá’x* • PCh *ʔiʔiʔiłáh • PW *tiłáχ

6.2.1.4 Pre-uvular lowering

Before the PM uvular fricative PM*χ, certain Proto-Mataguayan vowels – at least PM **a* and **e*, but possibly also **ä* – have distinct reflexes in Maká.

When PM *χ is adjacent to the target vowel, PM **a* and **e* merge as *a*. The development PM **aχ* > Mk *aχ* is shown below.

- (265) PM *jiʔixátaχ, *jiʔixáta-ts ‘ocelot’ > Mk *iʔixataχ, iʔixate-ts* • Ni *jixátax, jixáta-s*
- (266) PM *[wa]kuma’χ ‘to run’ > Mk *[we]kuma’χ* • Ni *[βa]kuma’x*
- (267) PM *(-)k’útsa’χ, *(-)k’útsha-ts ‘old’ > Mk *k’utsa’χ, k’utshé-ts* • Ni *k’utsa’x, k’utxsa-s* • PCh *-k’úсах, *-k’úsa-s • PW *-k^j’útsaχ
- (268) PM *-taχ, *-ta-ts ‘pseudo-’ > Mk *-taχ, -te-ts* • Ni *-tax, -ta-s* • PCh *-tah, *-ta-s • PW *-taχ, *-ta-s
- (269) PM *(X₁₃on-)xa’χ, *(X₁₃on-)xáh-aj^h ‘night’ > Mk *<na>xa’χ* • Ni *<xon>fa’x, <xon>fa’x-aj* • PCh *-<ʔa>h<n>áh ~ *-<ʔá>h<n>áh • PW *-<hon>aχ, *-<hon>áh-aj^h
- (270) PM *tsópha-taχ ‘fruit of a shrub (*Lycium americanum*)’ > Mk *tsofe-taχ* • Ni *tsoφ-tax*

- (271) PM $*(?)wána^{\prime}\chi$, $*(?)wánha-ts$ ‘piranha’ > Mk $wana^{\prime}\chi$, $wanhe-ts$ • Ni $\beta\grave{a}nax$, $\beta\grave{a}nxa-s$
- (272) PM $*xunxáta\chi$ ‘tusca fruit’ > Mk $xunxeta\chi$ • Ni $xunfatax$ • PCh $*\grave{i}hnátah$ • PW $*xnháta\chi$

The following examples show that PM $*e\chi$ also changes to Mk $a\chi$.

- (273) PM $*wósitse\chi$ ‘black algarrobo fruit (*Prosopis nigra*)’ > Mk $ositsa\chi$ • Ni $\beta\grave{a}itsex$ • PW $*wósotsa\chi$
- (274) PM $*\grave{I}á^{\prime}jtex$, $*\grave{I}á^{\prime}jte-ts$ ‘to hurt’ > Mk $a\grave{I}ta\chi$, $a\grave{I}ti-ts$ • Ni $\grave{I}á^{\prime}jtex \sim \grave{I}á^{\prime}\beta tex$ • PCh $*\grave{I}á^{\prime}j\grave{I}tah-APPL$, $*-\grave{I}á^{\prime}j\grave{I}te-s-APPL$ • PW $*\grave{I}á^{\prime}jta\chi$, $*\grave{I}á^{\prime}jte-s$
- (275) PM $*\grave{I}ánhaje\chi$ ‘wild bean (*Capparis retusa*)’ > Mk $anheja\chi$ • Ni $\grave{I}ánxajex$ • PCh $*\grave{I}óhnajah$ • PW $*\grave{I}ánhja\chi$
- (276) PM $*\grave{I}áthaje\chi \sim * \grave{I}áthäje\chi$ ‘molle fruit’ > Mk $atheja\chi$ • Ni $\grave{I}átxajex$

In the following example, it is impossible to rule out the reconstruction of PM $*a\chi$ or PM $*e\chi$.

- (277) PM $*[ji]k^{\prime}ása^{\prime}\chi \sim *[ji]k^{\prime}ése^{\prime}\chi$ ‘to divide’ > Mk $[j]<a>k^{\prime}esa^{\prime}\chi$ • PCh $*[i]k^{\prime}ésah$ • PW $*[hi]k^{\prime}ésa\chi$

If a consonant intervenes between the target vowel and PM $*\chi$, $*e$ is reflected as Mk e rather than i or a .

- (278) PM $*ké\grave{t}\chi a-ju^k$, $*ké\grave{t}\chi a-jku-j^h$ ‘red quebracho’ > Mk $ke\grave{t}e-jku-$ • Ni $t\grave{f}e\grave{t}\chi a-juk$, $t\grave{f}e\grave{t}\chi a-ku-j$ • PCh $*kéhla-juk / *kéhla-jku-$ • PW $*k^{\prime}é\grave{t}-juk^w$, $*k^{\prime}é\grave{t}-k^{\prime}u-j^h$

The lowering induced by the uvular fricative left behind a number of synchronically active alternations in Maká. In forms that go back to PM etyma with $*e\chi$ or $*a\chi$, the lowering applies, and one finds Mk $a\chi$. By contrast, the reflexes of PM forms derived from the vocalic stems of the same etyma (see §5.2.2) show no lowering, because PM $*\chi$ was absent in the respective protoforms. Consequently, one finds Mk i and e . Some examples are given in (279).

- (279) Maká (Gerzenstein 1999: 121, 130, 183, 361)
- $anheja\chi$ ‘wild bean’ → $anheji-p$ ‘wild bean season’
 - $a\grave{I}ta\chi$ ‘it hurts’ → $a\grave{I}ti-ts$ ‘they hurt’
 - $i-f^{\prime}ilxetsa\chi$ ‘poor.SG’ → $i-f^{\prime}ilxetsi-ts$ ‘poor.PL’

- d. *wana*^ʔχ ‘piranha’ → *wanhe-ts* ‘piranhas’
 e. *xaja-ta*χ ‘western mastiff bat’ → *xaja-te-ts* ‘western mastiff bats’

Note that the lowering does not apply before the uvular stop *q, as the following example shows.

- (280) PM **tsaqaq* ~ *-*ä*- ‘plant sp.’ > Mk *tseqaq* • Ni *tsakak*

The sound change described in this subsection is thus unrelated to the process whereby *i* is lowered to *e* (or *a*, *o* as per vowel harmony) before the uvular stop *q* in Maká, as in the first-person singular possessive prefix *ji-* and in the homophonous third-person active realis prefix, seen in *je-qekxi?* ‘my calf’, *ja-q’astali?* ‘my saliva’, *jo-qofol* ‘my nail’, *je-qeku?* ‘s/he doubts’ (Gerzenstein 1994).

6.2.1.5 Vowel harmony

Above (§6.2.1.2) we have seen that PM **a* and **ä* have Mk *e* as their default reflex. However, a special reflex is found when the following syllable contains one of *a* or *o*: in that case, PM **a* (and possibly **ä*) harmonize to Mk *a* or *o*, respectively, as the following examples show.

- (281) PM **k’alxó* (*-*ts*) ‘armadillo sp.’ > Mk *k’olo*^ʔ*x* • Ni *k’akxo* (-*s*) • PCh **k’ihló?* (*-*s*) • PW **k’anhóh*
 (282) PM **qá-* / **q-* ‘indirect possession’ > Mk *qe-* / *qa-* / *qo-* / *q-* • Ni *ka-* / *k-* • PCh **qá-* / **q-* • PW **qá-* / **q-*
 (283) PM *(-)*tak’o(h)* ~ *(-)*täk’o(h)* ‘kind of utensil’ > Mk *tok’o* • Ni *-tak’o-tax*
 (284) PM *(^ʔ)*wawo(h)* (*-*l*) ‘maned wolf’ > Mk *wowo* (-*l*) • Ni *βaβo* (-*k*)
 (285) PM **xnáwã*^ʔ*p* ‘spring’ > Mk *xinawa*^ʔ*p* • Ni *fnaβãp* ~ *fñãβãp* • PCh **náwop* • PW **xnáwop*
 (286) PM **ʔa*^ʔ*nqo*^ʔ*k* ‘paralytic’ > Mk *onqok* • Ni *ʔa*^ʔ*nko*^ʔ*k*
 (287) PM *[*t*]^ʔ*at’o* ‘to yawn’ > Mk [*t*]^ʔ*ot’o-kij* • Ni [*t*]^ʔ*at’o*

This sound change gave rise to a synchronically active alternation in Maká whereby *e* alternates with *a* and *o* whenever a low vowel follows in the next syllable (Gerzenstein & Gualdieri 2003: 106–108). This alternation affects prefixes that contain the vowel *e* < PM **a*/**ä*, as is the case with the indirect possession prefix *qa-* (288) and the second-person possessive prefix *a-* (289). In addition, it affects prefixes that are reconstructed as syllabic consonants in Proto-Mataguyan.

This includes the third-person possessive and the second-person active realis prefixes (PM **t̥*- before consonants), the third-person active irrealis prefix (PM **ŋ*- before consonants), and the third-person T-class realis prefix (PM **t̥*- before consonants), whose Maká reflexes are *ʔe-* / *ʔa-* / *ʔo-* (290), *ne-* / *na-* / *no-* (291), *te-* / *ta-* / *to-* (292).

(288) Maká (Gerzenstein & Gualdieri 2003, Gerzenstein 1999: 240)

- a. ʔe-qe-neneʔk
3.POSS-ALZ-spoon
'his/her spoon'
- b. in-qo-kojojoj
1+2.POSS-ALZ-car
'our car'
- c. ja-qa-lasxixu
1SG.POSS-ALZ-poncho
'my poncho'

(289) Maká (Gerzenstein & Gualdieri 2003: 107)

- a. e-kumkenet
2.POSS-thigh
'your thigh'
- b. a-qawex
2.POSS-throat
'your throat'
- c. o-noki?
2.POSS-elbow
'your elbow'

(290) Maká (Gerzenstein 1994: 85, 88, 148)

- a. ʔe-kʔinix
3.POSS-younger_brother
'his/her younger brother'
- b. ʔo-noki?
3.POSS-elbow
'his/her elbow'
- c. ʔe-fejejki?
2.ACT-rotate
'you rotate'

- d. ɫa-maʔ
2.ACT-sleep
'you sleep'
- (291) Maká (Gerzenstein 1994: 85, 88)
- a. ne-n-ek
3.ACT.IRR-CISL-go
's/he comes'
- b. no-t-otoj
3.ACT.IRR-3_T-dance
'(that) s/he dance'
- c. na-maʔ
3.ACT.IRR-sleep
'(that) s/he sleep'
- (292) Maká (Gerzenstein & Gualdieri 2003: 106)
- a. te-fejejkiʔ
3_T-rotate
's/he rotates'
- b. to-foχij-kij
3_T-play_flute-ANTP
's/he plays flute'

6.2.2 Maká *j* following high vowels

The combination of Mk *i* and *j* surfaces as [i:], either at morpheme boundaries or within morphemes. One example is Mk *witi-kfi-j* 'one's ears', pronounced [witikfi:]. In this book, we represent the sequence in question as *ij*.

In a similar vein, PM **uj*^(h) is reflected as Mk *wi* after obstruents, with the sonority reaching its peak during the final phase of the rhyme: Mk *k'wi* 'cold' (but *k'uj-i-m* 's/he feels cold', with the benefactive applicative), *nimełkw-i* 'tombs' (from *nimełuk* 'tomb' and *-j* 'plural'), *k-'wi* 'I enter' (but *j-uj* 's/he enters'). In this case we follow our sources in representing the sequence in question as *wi*, because *uj* is also attested as a valid rhyme in the language: *hejeftuj* 'I fart', *wit'afthuj* 'bile.PL', *esupuj* 'it is soft' (Gerzenstein 1999).

6.3 Word-level prosody

According to Gerzenstein's (1989) description, Maká does not retain any traces of the prosodic distinctions that we reconstruct for Proto-Mataguayan. Instead, Maká has innovated an edge-demarcation pattern whereby the final syllable of a word receives primary stress (293).

- (293) Maká (Gerzenstein 1989: 67–68)²
- a. *sa'lal* 'cicada'
 - b. *sala'lits* 'cicadas'
 - c. *fo'χits* 'flutes'
 - d. *si'wa'lax* 'spider'
 - e. *si'wala'χits* 'spiders'
 - f. *najaɬe'ne'χ* 'alligator'
 - g. *najaɬene'χits* 'alligators'
 - h. *honokok'en'xu?* 'I kneel'

In addition, words of four or more syllables receive secondary stress on their peninitial syllable if it is heavy (i.e., contains a coda), and on their initial syllable otherwise (Gerzenstein 1989: 68).

- (294) Maká (Gerzenstein 1994: 69)
- a. *qo, textin'he?* 'bee sp. (mid-sized, dark brown, stings lightly)'
 - b. *qo, textinhe'tax* 'bee sp. (queen bee, large, dark brown, stings painfully)'
 - c. *t'o, konkote'ket* 'acacia (*Acacia bonariensis*) grove'
 - d. *,qets'ijo'hol* 'bee sp. (mid-sized, yellow, stings hard, produces small amounts of inedible honey)'
 - e. *,qets'ijoho'lits* 'bees sp. (same species as above)'
 - f. *,neqfejen'het* 'wax'
 - g. *,neqfejenhe'tits* 'wax.PL'

²The preglottalization in the terms for 'spider' and 'alligator' is not represented in Gerzenstein's (1989) work; it is attested in UNICEF & Tekombo'e ha Tembikuaa Motenondeha (2022: 16) and Braunstein (1987: 71), respectively.

7 Nivaçle

This chapter deals with the historical phonology of Nivaçle [niva1238] (§1.1.2). §7.1 discusses the development of PM consonants, vowels, and prosody from the PM stage to Nivaçle. §7.2 is concerned with the diversification of the Nivaçle dialects.

In what follows, we rely on Seelwische’s (2016) dictionary, on Gutiérrez’s (2015b) phonological description, and on Stell’s (1987), Fabre’s (2014), and Campbell et al.’s (2020) grammatical descriptions.

The consonantal inventory we assume for Nivaçle is given in Table 7.1. We follow Gutiérrez’s (2015b) analysis of the preglottalized codas as complex codas, and do not posit a set of preglottalized stops and fricatives; therefore, Nivaçle *k̠loʔp* ‘winter’ is analyzed as /k̠loʔp/. The inclusion of preglottalized segments – *ʔk̠l*, *ʔβ*, *ʔj*, *ʔm*, *ʔn* – is our addition, broadly inspired by Gutiérrez’s (forthcoming) work. The vocalic inventory we assume for Nivaçle includes six vowels, /i e a å o u/.

Table 7.1: Nivaçle consonants

| | labial | dental | alveolar | postalveolar | velar | glottal |
|--|--------------|---------|----------|--------------|--------------------|---------|
| plain stops | p | t | ts | tʃ | k [k ~ q] | ʔ |
| ejective stops | pʼ | tʼ | tsʼ | tʃʼ | kʼ [kʼ ~ qʼ] | |
| laterally released stop | | | | | k̠l [k̠l ~ q̠l] | |
| preglottalized laterally released stop | | | | | ʔk̠l [ʔk̠l ~ ʔq̠l] | |
| plain fricatives | ɸ [ɸ ~ f] | ɬ | s | ʃ | x [x ~ χ ~ h] | |
| plain approximants | β [β ~ w] | | | j | | |
| preglottalized approximants | ʔβ [ʔβ ~ ʔw] | | | ʔj [ʔj] | | |
| plain nasals | m | n | | | | |
| preglottalized nasals | ʔm [ʔm] | ʔn [ʔn] | | | | |

7.1 From Proto-Mataguayan to Nivaçle

This section describes the evolution of PM consonants (§7.1.1), vowels (§7.1.2), and prosody (§7.1.3) in Nivaçle.

7.1.1 Consonants

The consonant system of Nivaçle has undergone relatively little change since the Proto-Mataguayan stage. We start by discussing the phonetic (or even notational) change PM **w* > Ni β (§7.1.1.1). Then we proceed to the major innovations that affected PM **l*, which changed to \widehat{kl} (§7.1.1.2), as well as the consonants **k*('), **q*('), **x*, **ç*, **h*, which are reflected as Ni *k*('), *tʃ*('), *x*, *f*, or \emptyset depending on the environment (§7.1.1.3). We also describe two sound changes restricted to the coda position – \widehat{kl} > Ni *k* (§7.1.1.4) and **ts* > Ni *s* (§7.1.1.5) – and a number of changes involving glottalized consonants and the glottal stop (§7.1.1.6–§7.1.1.9). §7.1.1.10 deals with the development of PM consonant clusters in Nivaçle.

7.1.1.1 PM **w*

In this book, we employ the symbol β for the labial approximant of Nivaçle. It is the regular reflex of PM **w* (see §2.1.13 for concrete examples). Note that even synchronically some authors still analyze the Nivaçle phoneme in question as /w/, though all agree that its possible realizations include a bilabial approximant in addition to a labiovelar one. In this regard, Gutiérrez (2016a: 4) states that in the Shichaam Lhavos variety “[β] and [v] appear to have replaced the use of /w/. However, the latter can still be found preceding back vowels”. Campbell et al. (2020: 44–45) analyze the phoneme as question as /w/ and claim that it “varies in pronunciation between [w] and [β]. In most cases, [β] is possible but one of these allophones is favored over the other in certain environments. It is typically pronounced as [β] before *i*, *e*, or *a*. This [β] is not a strong bilabial fricative, rather it is a bilabial approximant with very weak friction. It has the allophone [w] before *u*, *o*, and \hat{o} [our \hat{a} – A.N., J.C.], sometimes alternating freely with [β] before these vowels”.

7.1.1.2 PM **l*

PM **l* changed to \widehat{kl} in Nivaçle. This cross-linguistically rare sound is described in great detail by Gutiérrez (2019a), who analyzes it as a complex segment. Its stop element is velar or uvular (IPA [k] or [q]), whereas its release is a voiced velarized alveolar approximant (IPA [ɺ]). The sound change from PM **l* to Ni \widehat{kl} is argued

by Gutiérrez (2019a: 64–70) to have been a perception-driven one, whereby stop bursts were reinterpreted as emergent laterally released stops. In the coda position, $\widehat{k}l$ further delateralized to k , as discussed in §7.1.1.4. The following examples illustrate this process (for a more representative list, see §2.1.14).

- (1) PM $*[ji]\phi\acute{a}l$ ‘to tell’ > Mk $n(i)\text{-}fel\text{-}im$ • Ni $n(i)\text{-}\phi ak / n(i)\text{-}\phi a\widehat{k}l$ • PCh $*[ʔi]hw\acute{e}l$ • PW $*[ʔi]x^w\acute{e}l^h / *[ʔi]x^w\acute{e}l$
- (2) PM $*\text{-}(\acute{e})l$ ‘PL’ > Mk $-l$ • Ni $\text{-}(e)k$ • PCh $*\text{-}(\acute{e})l$ • PW $*\text{-}(\acute{e})l^h$
- (3) PM $*[ji]l\acute{a}n$ ‘to kill’ > Mk $[ji]lan$ • Ni $[ji]k\widehat{l}\acute{a}n$ • PCh $*[ʔi]l\acute{a}n$ • PW $*[ʔi]l\acute{a}n$
- (4) PM $*\text{-}l\acute{a}ʔ, *l\acute{a}\text{-}j^h$ ‘domestic animal’ > Ni $\text{-}\widehat{k}l\acute{a}ʔ$ ($-j$) • PCh $*\text{-}l\acute{a}\text{-}hwah$ > • PW $*\text{-}l\acute{a}ʔ, *l\acute{a}\text{-}j^h$
- (5) PM $*\text{-}l\acute{e}ts$ ‘offspring’ > Mk $\text{-}lits$ • Ni $\text{-}k\widehat{l}es$ • PCh $*\text{-}l\acute{e}s$ • PW $*\text{-}l\acute{e}s$
- (6) PM $*[ji]l\acute{e}x$ ‘to wash’ > Mk $[ji]lix\text{-}uʔ$ ‘to clean’ • Ni $[ji]k\widehat{l}eʔ$ • PCh $*[ʔi]l\acute{e}h$ • PW $*[ʔi]l\acute{e}x$
- (7) PM $*lo^p \sim *l\acute{o}^p, *lop\text{-}íts \sim *l\acute{o}p\text{-}its$ ‘winter’ > Mk $lo^p, lop\text{-}its$ • Ni $k\widehat{l}o^p, k\widehat{l}op\text{-}is$ • PCh $*l\acute{o}p$ • PW $*lop \sim *l\acute{o}p$
- (8) PM $*\text{-}l\acute{u}tse^x, *\text{-}l\acute{u}tsxe\text{-}ts$ ‘bow’ > Ni $k\widehat{l}utseʔ / \text{-}k\widehat{l}utseʔ, \text{-}k\widehat{l}utse\text{-}s$ • PCh $*\text{-}l\acute{u}seh$ ($*\text{-}es$) • PW $*\text{-}l\acute{u}tse^x, *\text{-}l\acute{u}tse\text{-}s$
- (9) PM $*s\acute{a}l\acute{a}(?)l, *s\acute{a}l\acute{a}\text{-}its$ ‘middle-sized cicada’ > Mk $sala(?)l, salal\text{-}its$ • Ni $s\acute{a}k\widehat{l}\text{-}\acute{a}k\widehat{l}\text{-}\acute{a}k$ ($\text{-}is$)
- (10) PM $*s^w\acute{u}la^x, *s^w\acute{u}la\text{-}ts$ ‘anteater’ > Ni $s^w\acute{b}uk\widehat{l}ax, s\acute{b}uk\widehat{l}a\text{-}s$ • PCh $*s^w\acute{u}lah, *s^w\acute{u}la\text{-}s$ • PW $*s\acute{u}lax$
- (11) PM $*ʔ\acute{e}le(?)$ ‘parrot’ > Ni $ʔek\widehat{l}e$ • PCh $*ʔ\acute{e}leʔ$ • PW $*ʔ\acute{e}le$

It must be noted that since the sound change in question Nivaçle has innovated a new l , found in borrowings, such as *alus* ‘rice’, *palapaɟ* ‘Paraguay’, *kaletax* ‘cart’, *ele* ‘German, missionary’ (Gutiérrez 2015b: 252),¹ and in onomatopoeic words, such as *sile sile* ‘a flute from old times’, *uku'luku* ‘barn owl’ (Stell 1987: 60).

¹The former three loans ultimately come from Spanish *arroz*, *Paraguay*, and *carreta*, with identical meanings; the stem-final x in *kaletax* could be attributed to popular etymology, given the existence of the suffix *-tax* ‘similar to’. The origin of the latter loan (identified by Campbell et al. 2020: 8 as a Shichaam Lhavos dialectism) is disputed: Stell (1987: 60) and Seelwische (2016: 124) claim it comes from Maká (we have been unable to identify a suitable etymon), whereas other believe it is a borrowing from Spanish *inglés* ‘Englishman’ (Fritz 1997).

7.1.1.3 Guttural stops and fricatives

The guttural stops (PM **k*, **k'*, **q*, **q'*) and fricatives (**x*, **ç*, **h*) yielded velar segments in Nivaçle (Ni *k*, *k'*, and *x*), with two important exceptions: the velar consonants of Proto-Mataguyan – but not the uvular and glottal consonants – palatalized to Ni *tf*, *tf'*, and *f* in certain environments, and the glottal fricative **h* is deleted in the coda position.

We start by presenting the reflexes of PM **q*, **q'*, and **ç*, which never palatalize in Nivaçle. PM **q* and **q'* yield Ni *k* and **k'*, respectively, in all positions:

- (12) PM **-âq*, **-qâ'-ts* 'food' > Mk *-aq*, *-qa-ts* • Ni *-âk*, *-kâ-s* • PCh **-âk*, *-qâ'-s* • PW **-t-âq*, **-qâ'<s>*
- (13) PM **-φqatô* (**-l*) 'elbow' > Ni *-(?V)φkato* (*-k*) • PCh **-qatô?* (**-l*) • PW **-qâto* (**-l^h*)
- (14) PM **(-)hâqke?* 'well' > Mk *haqqi?* 'river' • Ni *-xâke* 'dry well' • PCh **-hââke?* 'artificial well'
- (15) PM **-nX₂₃aq(')*ât 'to snore' > Ni *[ta]nxakât* • PCh **[ʔi]hnâq'ât*
- (16) PM **qa* 'in order to' > Mk *qe* • Ni *ka* • PCh **qa*
- (17) PM **qâ-* / **q-* 'indirect possession' > Mk *qe-* / *qa-* / *qo-* / *q-* • Ni *ka-* / *k-* • PCh **qâ-* / **q-* • PW **qâ-* / **q-*
- (18) PM **[ji]qâku?* 'to distrust' > Mk *[je]qeku?* • Ni *[ji]kaku* • PCh **[ji]qâku?* • PW **[ji]qâk^u-APPL*
- (19) PM **-qalâ?* (**-j^h*) 'leg' > Ni *-kaklâ?* (*-j*) • PCh **-qa'lá?* ~ **-qâ'lá?* (**-j^h*) • PW **-qâlâ* (**-j^h*)
- (20) PM **qapa(°)p* ~ **-â-* 'dwarf' > Mk *qep<ep>e(°)p* • Ni *kapap* 'dwarf dog'
- (21) PM **qati'°ts*, **qatits-él* 'star' > Ni *kati'°s* • PCh **qatés*, **qates-él* • PW **qates*, **qatés-el^h*
- (22) PM **-qéj* (**-its*) 'custom' > Ni *-kej* (*-is*) • PCh **-qéj?* (**-is*) • PW **-qéj* (**-is*)
- (23) PM **-sâq'âl^h*, **-sâq'âl-its* 'soul, spirit' > Mk (?) *-si'ng'al* (*-its*) • Ni *-sâk'âkl<it>* • PCh **-sâq'âl^h*, **-sâq'âl-is*
- (24) PM **slâqha(°)j*, **slâqhaj-its* 'wild cat' > Ni *sklâkxaj* ~ *sklâkxaj* (*-is*) • PCh **s'láhqaj?* ~ **s'láhqâj?* (**-is*) • PW **silâqhâj*
- (25) PM **tsaqaq* ~ **-ä-* 'plant sp.' > Mk *tseqaq* • Ni *tsakak*
- (26) PM **ʔa'ngo'k* 'paralytic' > Mk *onqok* • Ni *ʔa'ngo'k*
- (27) PM **ʔaqâje'k* 'wild honey' > Ni *ʔakâjetf* • PW **ʔaqâjeq*

- (28) PM **-ʔaɣhuʔts* ~ **-ʔaɣhúʔts* ‘knee’ > Mk *-aɣhuʔts* • Ni *-(ʔa)kxuʔs* • PCh **-ʔaɣús*

Similarly, PM **χ* yielded Ni **x* in all environments:

- (29) PM **[j]áte(?)χ* ‘to be fat’ > Ni *[j]átex* • PCh **[j]átah* • PW **[j]átaχ*
- (30) PM **n-áχ* ‘to end up’ > Mk *n-aχ* • Ni *n-áx* • PCh **<n>óhw-APPL* • PW **<n>ox^w*
- (31) PM **φátsu(?)χ*, **φátshu-ts* ‘centipede’ > Ni *φatsux*, *φatsxu-s* • PCh **(h)wásuh*, **(h)wásu-s* • PW **x^wátsux^w*
- (32) PM **φínä(?)χ* ‘crab’ > Ni *φinax* • PCh **hwíneh*
- (33) PM **φkéna(?)χ* ‘north wind, north’ > Ni *φtfenax* • PCh **hw^wkénah*
- (34) PM **φtsána(?)χ* ‘suncho (*Baccharis* sp.)’ > Ni *φtsánax* • PCh **sánah* • PW **x^witsánaχ*
- (35) PM **[ji]φχän-* ~ **[ji]φχän-* ‘to kill a bird’ > Ni *[ji]φχan-APPL* • PCh **<ʔa>hwén-(n)ah* ‘bird’ • PW **<ʔa>x^wén-kⁱe* ‘bird’
- (36) PM **-φχúx*, **-φχú-ts* ‘finger’ > Mk *-fux* • Ni *-φxux*, *-φxu-s* ‘toe’ • PCh **-hwu-ké?* • PW **-x^wúx^w*, **-x^wú-s*
- (37) PM **iʔixátaχ*, **iʔixáta-ts* ‘ocelot’ > Mk *iʔixataχ*, *iʔixate-ts* • Ni *jixátax*, *jixáta-s*
- (38) PM **[ji]kaʔχ* ~ **[ji]káʔχ* ‘to take away’ > Mk *[j]<e>kaʔχ* • Ni *[ji]tfaʔx* • PW **[ji]kⁱáχ*
- (39) PM **kéʔχa-juʔk*, **kéʔχa-jku-j^h* ‘red quebracho’ > Mk *keʔe-jku-* • Ni *tfeʔxa-juk*, *tfeʔxa-ku-j* • PCh **kéhla-juk* / **kéhla-jku-* • PW **kⁱéʔ-juk^w*, **kⁱéʔ-kⁱu-j^h*
- (40) PM **[wa]kumaʔχ* ‘to run’ > Mk *[we]kumaʔχ* • Ni *[βa]kumaʔx*
- (41) PM **k'ú(t)sta(?)χ*, **k'ú(t)sta-ts* ‘barn owl’ > Ni (?) *k'ustax*, *k'usta-s* ‘mockingbird’ • PCh **k'ústah*, **k'ústa-s* • PW **k^jústax*
- (42) PM **(-)k'útsaʔχ*, **(-)k'útsha-ts* ‘old’ > Mk *k'utsaʔχ*, *k'utshe-ts* • Ni *k'utsaʔx*, *k'utsxa-s* • PCh **-k'úsah*, **-k'úsa-s* • PW **-k^jútsax*
- (43) PM **[ʔa]lólχ* ‘many.sg’ > Ni *<ʔa>k^wlólχ* • PCh **[ʔa]ʔlólχ*
- (44) PM **pátse(?)χ* ‘fast, quick’ > Ni *pátsex* • PCh **(-)pásah*
- (45) PM **pátséχ* ‘jabiru’ > Ni *pátsex* • PCh **pátsáh* • PW **pátsáχ*
- (46) PM **pátóχ* ‘to be deep’ > Ni *[ʔa]patox* • PCh **-pítohw<ijʔ>* • PW **pitóx^w*

- (47) PM *pitéχ, *pité-ts ‘long’ > Ni *pitex*, *pite-s* • PW *pitáχ, *pité-s
- (48) PM *sijâ(°)χ, *sijâχ-is ‘fish sp.’ > Mk *sija(°)χ*, *sijaχ-its* • Ni *sijâx (-is)*
- (49) PM *s°wúla°χ, *s°wúla-ts ‘anteater’ > Ni s°βuklāx, sβuklā-s • PCh *s°?úlah, *s°?úla-s • PW *súlaχ
- (50) PM *táχxan ‘to thunder’ > Mk *texen* • Ni *tafxen* • PW *t°áχan
- (51) PM *-taχ, *-ta-ts ‘pseudo-’ > Mk *-taχ*, *-te-ts* • Ni *-tax*, *-ta-s* • PCh *-tah, *-ta-s • PW *-taχ, *-ta-s
- (52) PM *tijâ°χ ‘to shoot, to throw’ > Mk *tija°χ / -hija°χ* • Ni *tijâ°x* • PCh *[?i]tijâh • PW *tijâχ
- (53) PM *tóχ-APPL, *tó-ts-APPL ‘far’ > Mk *-toχ-ij*, *to-ts-ij* • Ni *tox-APPL* • PCh *tóh(w)-APPL, *tó-ts-APPL • PW *tóx^w-ej^h
- (54) PM *tuχ-APPL ‘to burn (intr.)’ > Mk *tuχ-xem*, *tuχ-e?* • Ni *tux-a°m*, *tux-ej*
- (55) PM *tséχ-APPL ‘full (river)’ > Ni *tsex-APPL* • PCh *-sáh • PW *tsáχ-APPL
- (56) PM *tsóφa-taχ ‘fruit of a shrub (*Lycium americanum*)’ > Mk *tsofe-taχ* • Ni *tsoφ-tax*
- (57) PM *[j]útlâ(°)χ ‘to be tired’ > Mk *-uła(°)χ* ‘breath’ • Ni *[j]ułâx* • PCh *[j]úhlâh
- (58) PM *wV°χ, *wV°-ts ‘large, fat’ > Ni -βâ°x • PCh *wúh, *wú-s • PW *wúx^w, *wú-s
- (59) PM *wátâ(°)χ ‘palo flojo fruit’ > Ni *βâtâx* • PW *wátóx^w
- (60) PM *(°)wána°χ, *(°)wánha-ts ‘piranha’ > Mk *wana°χ*, *wanhe-ts* • Ni *βânax*, *βânxa-s*
- (61) PM *wósitex ‘black algarrobo fruit (*Prosopis nigra*)’ > Mk *ositsaχ* • Ni *βaitsex* • PW *wósotsaχ
- (62) PM *°wánXâtlâ°χ, *°wánXâtlâ-ts ‘rhea’ > Mk *waatāχ* • Ni *βânxâtlâx*, *βânxâtlâ-s* • PCh *°wánhlâh, *°wánhlâ-s • PW *wá°nłâχ, *wá°nłâ-s
- (63) PM *(X₁₃on-)xa°χ, *(X₁₃on-)xáh-aj^h ‘night’ > Mk <na>xa°χ • Ni <xon>fa°x, <xon>fa°x-aj • PCh *<?a>h<n>áh ~ *<?â>h<n>áh • PW *<hon>aχ, *<hon>áh-aj^h
- (64) PM *xunxátaχ ‘tusca fruit’ > Mk *xunxetaχ* • Ni *xunfataχ* • PCh *?ihnátah • PW *xnhátāχ
- (65) PM *(?a)X₁₃útsa(°)χ, *(?a)X₁₃útsha-ts ‘crested caracara’ > Ni *xutsax*, *xutsxa-s* • PCh *(?a)húsah, *(?a)húsa-s • PW *?ahútsaχ, *?ahútsha-s

- (66) PM *ʔáp'a(°)χ ~ *ʔáf'a(°)χ 'jararaca' > Ni ʔap'ax • PCh *ʔáp'ah
- (67) PM *ʔatu'χ ~ *ʔatú'χ 'snake sp.' > Ni ʔatu'x • PCh *ʔatúh
- (68) PM *ʔáwu(C)tseχ 'peccary' > Ni ʔaβuktsex ~ ʔaβoktsex • PCh *ʔáwusah • PW *ʔáwutsaχ
- (69) PM *ʔaX₁₃ájje(°)χ 'mistol fruit' > Ni ʔaxájex • PCh *ʔahájah • PW *ʔahájax
- (70) PM *ʔá'jteχ, *ʔá'jte-ts 'to hurt' > Mk aʔtaχ, aʔti-ts • Ni ʔá'jtex ~ ʔá'βtex • PCh *ʔájʔtah-APPL, *-ʔájʔte-s-APPL • PW *ʔájtaχ, *ʔájte-s
- (71) PM *ʔá'lá-taχ, *ʔá'lá-ta-s 'Argentine boa' > Ni ʔá'klâ-tax, ʔá'klâ-ta-s • PCh *ʔá'lá<tah> ~ *ʔá'lá<tah>, *ʔá'lá<ta>-s ~ *ʔá'lá<ta>-s • PW (?) *lá<taχ>
- (72) PM *ʔál(V)tse(°)χ, *ʔál(V)tse-ts 'cháguar (*Deinacanthon urbanianum*)' > Ni ʔáktsex, ʔáktse-s • PCh *ʔál'sah, *ʔál'se-s • PW *ʔáletsax
- (73) PM *ʔánhajeχ 'wild bean (*Capparis retusa*)' > Mk anhejaχ • Ni ʔánxajex • PCh *ʔóhnajah • PW *ʔánhjaχ
- (74) PM *ʔásk'ála(°)χ 'widower' > Ni ʔástʃaklax • PCh *ʔásk'élah
- (75) PM *ʔáthajeχ ~ *ʔáthäjeχ 'molle fruit' > Mk athejaχ • Ni ʔátxajex
- (76) PM *-ʔäsxa'n, *-ʔäsxán-its 'meat' > Mk -ʔese'n, -ʔesen-its • Ni -(ʔa)sxa'n, -(ʔa)sxan-is • PCh *-ʔisá'n, *-ʔisán-is • PW *-t-'isa'n, *-t-'isán-is
- (77) PM *ʔitá(°)χ, *ʔitá-ts 'fire' > Ni ʔitáx, ʔitá-s • PCh *ʔitáh, *ʔitá-s • PW *ʔitáχ, *ʔitá-s
- (78) PM *ʔóna(°)χ 'my brother' > Ni ʔonax • PCh *ʔónah
- (79) PM *ʔuwáte(°)χ [?] *C'uwáte(°)χ 'puma' > Ni <xum>p'uβatex • PCh *k'uwáhlah • PW *ʔowátax [?] *C'owátax

PM *h also yielded Ni x, but only in onsets.

- (80) PM *ʔánha? ~ *ʔánha? (*-j^h) 'locust' > Mk <e>fenhe? (-j) • Ni ʔanxa (-j)
- (81) PM *ʔátshu-ts 'centipedes' > Ni ʔatsxu-s • PCh *(h)wásu-s
- (82) PM *h- 'that (outside the speaker's sight)' > Mk h- • Ni xa? • PCh *há? ~ *há?
- (83) PM *ha- '1SG.ACT' > Mk he- / ha- / ho- • Ni xa- • PCh *ʔa- • PW *ʔa-
- (84) PM *(-)háqke? 'well' > Mk haqqi? 'river' • Ni -xáke 'dry well' • PCh *-hááke? 'artificial well'
- (85) PM *him (*-its) 'coati' > Mk him (-its) • Ni xim (-is)

- (86) PM **khát* ‘cactus’ > Mk *khat-uʔk* • Ni *kxat* • PCh **kâhát* • PW **kʰáhát*
- (87) PM **k’unhate-nhaʔ* ‘pacu fish’ > Mk <*i*>*k’unheti-nheʔ* (-j) • Ni *k’unxate<nxa>* (-j)
- (88) PM *(-)*k’útsha-ts* ‘old.PL’ > Mk *k’utshe-ts* • Ni *k’utsxa-s* • PCh *(-)*k’úsa-s*
- (89) PM **-mhá-jʰ* ‘powders, flours’ > Ni *mxá-j* • PW **-mhó-jʰ*
- (90) PM *(-)*nijhá-jʰ* ‘ropes, cords’ > Mk (-)*nijha-j* • Ni *-nijxá-j* • PCh **níjhá-jʰ* • PW **níjhá-jʰ*
- (91) PM **sláqha(ʔ)j*, **sláqhaj-its* ‘wild cat’ > Ni *ʃklâkxaj* ~ *sklâkxaj* (-is) • PCh **sʰlâhqajʔ* ~ **sʰlâhqâjʔ* (*-is) • PW **silâqhâj*
- (92) PM **títhe-jʰ* ‘plates’ > Ni (-)*titxe-j* • PCh **tíhte-jʰ*
- (93) PM **wáth(â-j)uʔk* ‘palo flojo tree’ > Ni *βâtxâ-juk* • PCh **wáht<uk>*
- (94) PM **-xáthe-jʰ* ‘heads’ > Ni *-fatxe-s* • PCh **-héhte-jʰ* • PW **-t-éthe-jʰ*
- (95) PM *(?*a*)*X₁₃útsha-ts* ‘crested caracaras’ > Ni *xutsxa-s* • PCh *(?*a*)*húsa-s* • PW **ʔahútsha-s*
- (96) PM **-ʔaqhuʔts* ~ **-ʔaqhúʔts* ‘knee’ > Mk *-aqhuʔts* • Ni *-(ʔa)kxuʔs* • PCh **-ʔaqús*
- (97) PM **ʔánhajaχ* ‘wild bean (*Capparis retusa*)’ > Mk *anhajaχ* • Ni *ʔánxajex* • PCh **ʔóhnajah* • PW **ʔánhajaχ*
- (98) PM **ʔâthajaχ* ~ **ʔâthäjaχ* ‘molle fruit’ > Mk *athejaχ* • Ni *ʔâtxajex*
- (99) PM **ʔ[j]éjxâts-han* ‘to teach’ > Mk *[j]ixats<hen>* • Ni *[j]ejxats-xan / -ʔejxats-xan* • PCh **ʔ[j]éjâhâs<an>*
- (100) PM **ʔomhatäk* ~ **ʔomhätäk* ‘queen palm fruit’ > Mk *omhetek* • Ni *ʔomxatatf*

Word-finally, by contrast, PM **h* was lost in Nivaçle (note that PM **h* is not known to have occurred in codas word-medially). The deletion of PM **h* also applied to PM **jʰ* and **lʰ* (underlying clusters */jh/, */lh/), as in (101), (102), (111), (113).

- (101) PM *-(*á*)*jʰ* ‘PL’ > Mk *-(e)j* • Ni *-(a)j* • PCh *-(*á*)*jʰ* • PW *-(*á*)*jʰ*
- (102) PM **-ejʰ* ‘APPL:DISTAL’ > Mk *-ij* • Ni *-ej* • PCh **-ejʰ* • PW **-ejʰ*
- (103) PM **-φah*, **-φa-ts* ‘companion’ > Mk *-fe* (-ts) • Ni *-φa* (-s) • PCh **-hwah*, **-hwa-s* • PW **-xʰah*, **-xʰa-s*
- (104) PM **kʰékʰeh* ‘monk parakeet’ > Ni *tʃetʃe* • PCh **kékʰeh* • PW **kʰékʰe*

- (105) PM **-kíƀah*, **-kíƀa-ts* ‘neighbor’ > Mk *-kife (-ts)* • Ni *-tƀiƀa (-s)* • PCh **-kíhwah*, **-kíhwa-s*
- (106) PM **-k’álƀah* ‘spouse’ > Ni *-tʃ’akƀa* • PCh **-k’élhwah* • PW **-k’íéx’wah*
- (107) PM **láp’ih* ~ **láf’ih* ‘snail’ > Ni *k̄láp’i* • PCh **láp’ih*
- (108) PM **máh* ‘go!’ > Mk *ma* • Ni *má* • PCh **máh* • PW **máh*
- (109) PM **nú?uh*, **nú?u-ts* ‘dog’ > Ni *nú?u (-s)* • PCh **nú?uh*, **nú?u-s*
- (110) PM **pútäh* ‘tapeti rabbit’ > Ni *puta* • PCh **púteh*
- (111) PM **-sáq’ál^h*, **-sáq’ál-its* ‘soul, spirit’ > Mk (?) *-si’ng’al (-its)* • Ni *-sák’ák̄<it>* • PCh **-sáq’ál^h*, **-sáq’ál-is*
- (112) PM **ts’áts’ih*, **ts’áts’i-l* ‘rufous hornero’ > Mk *ts’its’i (-l)* • Ni *ts’ats’i (-k)* • PCh **sát’ih* • PW **táts’i*
- (113) PM **-xíj^h* ‘recipient’ > Mk *-xij* • Ni *-fij / -xij* • PW **-híh*
- (114) PM **X₂₃wé’lah*, **X₂₃wé’la-ts* ‘moon’ > Ni *xíβe’la (-s)* • PCh **wé’lah*, **wé’la-s* • PW **xwé’lah*
- (115) PM **ʔánitih* ‘wasp sp.’ > Ni *ʔániti* • PCh **ʔánitih*
- (116) PM **ʔúl’áh*, **ʔúl’á-ts* ‘dove’ > Ni *ʔuk̄l’á (-s)* • PCh **ʔúl’áh*, **ʔúl’á-s*
- (117) PM **ʔVlá?ah*, **ʔVlá?a-ts* ‘lesser grison’ > Mk *ile* • Ni *ʔak̄la?a (-s)* • PCh **ʔelá?ah*, **ʔelá?a-s* ~ **ʔalá?ah*, **ʔalá?a-s* • PW **ʔilá?ah*

The velar consonants of Proto-Mataguayan followed a more complex evolution pathway: they clearly underwent a conditioned split, yielding velars (Ni *k*, *k’*, *x*) in some environments and post-alveolars (Ni *tʃ*, *tʃ’*, *f*) in others. The environment for palatalization can be broadly defined as “next to a non-back vowel (PM **i*, **e*, **ä*, **a* > Ni *i*, *e*, *a*), possibly with an intervening coronal consonant”. However, the palatalization did not occur if a back vowel (*u*, *o*, *á*) directly follows the target consonant or precedes it (either directly or with an intervening [+grave] = non-coronal consonant).

The following examples illustrate the palatalization of PM **k* and **k’* to Ni *tʃ* and *tʃ’*, respectively. Note that in each case there is a non-back vowel adjacent to the target consonant, and no back vowels adjacent to it.

- (118) PM **-aje’k* ~ **-ajé’k* ‘honey comb’ > Ni *-aje’tʃ* • PCh **-q-ájek*
- (119) PM **(-)ƀeʔek* ~ **-éʔe-* ~ **-eʔé-* ‘mortar’ > Mk *(-)fítik* • Ni *-ƀeʔetʃ* • PCh **(-)hwVhlek* • PW **xwéʔeq*
- (120) PM **[ji]ƀi’k* ~ **[ji]ƀi’k* ‘to hide’ > Ni *[ji]ƀi’tʃ* • PCh **[ʔi]hwík*

- (121) PM **φkéna*(^o)χ ‘north wind, north’ > Ni *φtʃenax* • PCh **hw^okénah*
- (122) PM **-ka*, **-ká-l* ‘tool, skillful person’ > Ni *-tʃa?*(*-k*) • PCh **-ká?*(**-l*) • PW **-kⁱa*, **-kⁱá-l^h*
- (123) PM **[ji]ka*^oχ ~ **[ji]ká*^oχ ‘to take away’ > Mk *[j]<e>ka*^oχ • Ni *[ji]tʃa*^ox • PW **[ji]kⁱáχ*
- (124) PM **kⁱékⁱeh* ‘monk parakeet’ > Ni *tʃetʃe* • PCh **kékⁱeh* • PW **kⁱékⁱe*
- (125) PM **kéłxa-ju*^ok, **kéłxa-jku-j^h* ‘red quebracho’ > Mk *kełe-jku-* • Ni *tʃełxa-juk*, *tʃełxa-ku-j* • PCh **kéhla-juk* / **kéhla-jku-* • PW **kⁱéł-juk^w*, **kⁱéł-kⁱu-j^h*
- (126) PM **[ji]kén* ‘to send’ > Mk *[j]<u>kin* • Ni *[ji]tʃen* • PCh **[ʔi]kén* • PW **[ʔi]kⁱén*
- (127) PM **kíφah*, **kíφa-ts* ‘neighbor’ > Mk *-kife* (*-ts*) • Ni *-tʃiφa* (*-s*) • PCh **kíhwah*, **kíhwa-s*
- (128) PM **-kilá?* (**-wot*) ‘elder brother’ > Ni *-tʃeklá?* / *tʃiklá-* (*-βot*) • PCh **-kilá?* (**-wot*) • PW **-kⁱíla*
- (129) PM **-kitá?* (**-wot*) ‘elder sister’ > Ni *-tʃita?* (*-βot*) • PCh **-kitá?* (**-wot*) • PW **-kⁱíta*
- (130) PM **-łi^ok* ~ **-łi^ok*, **-łi-j^h* ‘thread’ > Ni *-łi^otʃ*, *-łi-j<is>* • PCh **-hlík*, **-hlí-j^h*
- (131) PM **(-)skä^ot* ‘mesh’ > Ni *-stʃa^ot* • PW **sikⁱt*
- (132) PM **títe*(^o)k, **títe-j^h* ‘plate’ > Ni *(-)titetʃ*, *(-)titxe-j* • PCh **títek*, **títe-j^h*
- (133) PM **wäk* ‘all’ > Mk *wek* • Ni *-βatʃ* • PCh **-wek* • PW **-weq*
- (134) PM **-xäte^ok*, **-xäthe-j^h* ‘head’ > Ni *-fatetʃ*, *-fatxe-s* • PCh **-hétek*, **-héthe-j^h* • PW **-ł-éteq*, **-ł-éthe-j^h*
- (135) PM **ʔaqáje^ok* ‘wild honey’ > Ni *ʔakájetʃ* • PW **ʔaqájeq*
- (136) PM **ʔomhatäk* ~ **ʔomhätäk* ‘queen palm fruit’ > Mk *omhetek* • Ni *ʔomxatatʃ*

The following examples illustrate the palatalization of PM **x* to Ni *f*. Note that in all cases there is a non-back vowel adjacent to the target consonant, and no back vowels adjacent to it. Note that back vowels fail to block the palatalization of **x* in (156), (162)–(164), and in the plural forms in (145) and (149), since a coronal consonant intervenes. In (161), the coronal consonant *n* is transparent for the palatalization triggered by the front vowel **a* (the alternative reflex *á* is a late dialectal innovation, on which see §7.2.1.3).

- (137) PM *-ata(°)x ~ *-ä- ‘food’ > Mk -ete(°)x • Ni -ataf
- (138) PM *-á(-j^h)-xi? (*-l) ‘mouth’ > Mk -e<xi?> (-l) • Ni -a<fi> (-k) • PCh (?) *-á<aj?> • PW *-t-áj-hi (*-l^h)
- (139) PM *[ji]φá°x ‘to cut down’ > Mk fex-inet-ki? ‘ax’ • Ni [ji]φa°f • PCh *[ʔi]hwáh-APPL • PW *[ʔi]xwáχ
- (140) PM *-φáji°x ‘right’ > Mk -feji°x ‘left’ • Ni -φaji°f • PCh *-hwíjah
- (141) PM *φaxi(°)j ~ *φäxi(°)j ‘green ameiva’ > Mk fexij • Ni φafij
- (142) PM *φä°x ~ *φá°x ‘field’ > Ni φa°f • PCh *hwéh
- (143) PM *-k’inix, *-k’inxi-ts ‘younger brother’ > Mk -k’inix • Ni -tfinif • PCh *-k’inih, *-k’ihni-s • PW *-k’iniχ, *-k’ihni-s
- (144) PM *[ji]lé°x ‘to wash’ > Mk [ji]lix-u? ‘to clean’ • Ni [ji]klé°f • PCh *[ʔi]léh • PW *[ʔi]léχ
- (145) PM *(-)lútse°x, *(-)lútsxe-ts ‘bow’ > Ni klutsef / -klutse°f, (-)klutse-s • PCh *(-)lúseh (*-es) • PW *(-)lútseχ, *(-)lútse-s
- (146) PM *-°li°x, *-°lix-áj^h ‘language, word’ > Mk -°lix<e?> • Ni -°kli°f, -°klif-aj • PCh *-°lih, *-°lih-áj^h
- (147) PM *-na°x ~ *-ná°x / *-nxa- ~ *-nxá- ‘nose’ > Mk -ne°x / -nxe- • Ni -na°f, -nfa-s • PCh *-hná<tVwoh> • PW *-nh<us>
- (148) PM *-nji°x ‘smell’ > Mk -nji°x • Ni -ni°f • PCh *-nih • PW *-niχ
- (149) PM *(-)náji°x, *(-)nájx-aj^h ‘path’ > Ni náji°f, (-)nájif-aj / -°náji°f • PCh *(-)nájih, *(-)náhj-aj^h • PW *(-)nájiχ, *(-)nájh-aj^h
- (150) PM *-sa°x ~ *-sá°x ‘leaf’ > Mk 3 tē-se°x • Ni -sa°f
- (151) PM *táxχan ‘to thunder’ > Mk texen • Ni tafxen • PW *t’áχan
- (152) PM *ti°x ‘to dig’ > Mk ti(°)x-APPL / -ti(°)x-APPL • Ni ti°f • PCh *[ʔi]tíh-ij? • PW *tiχ
- (153) PM *-wǎ°x, *-w(ǎ)x-áj^h ‘burrow; anus’ > Ni -βa°f, -βaf-aj^h • PCh *-wéh • PW *-wéχ, -wh-áj^h
- (154) PM *[ji]t°ex ‘to say’ > Mk [ji]t°ix • Ni [ji]t°ef
- (155) PM *-xa, *-xá-l ‘price’ > Ni -fa? (-k) • PW *-ha, -há-l^h
- (156) PM *(X₁₃on-)xa°χ, *(X₁₃on-)xáh-aj^h ‘night’ > Mk <na>xa°χ • Ni <xon>fa°x, <xon>fa°x-aj • PCh *<ʔa>h<n>áh ~ *<ʔá>h<n>áh • PW *<hon>aχ, *<hon>áh-aj^h

- (157) PM *-xăjk'u(?) (*-l) 'egg' > Ni -fajk'u (-k) • PCh 3 *hl-éjk'u? (*-l) • PW *-t-ík'j'u (*-l^h)
- (158) PM *-xáte'k, *-xáthe-j^h 'head' > Ni -fate'tf, -fatxe-s • PCh *-hétek, *-héhte-j^h • PW *-t-éteq, *-t-éthe-j^h
- (159) PM *xélâ-ju'k 'tree sp.' > Ni sek̄lâ-juk • PCh *hél-ek • PW *hél-ek^w
- (160) PM *-xéle? 'dirt' > Mk -xili? • Ni -fek̄le
- (161) PM *xnáwâ'p 'spring' > Mk xinawa'p • Ni fnaβâp ~ fnâβâp • PCh *náwop • PW *xⁿáwop
- (162) PM *xunxátaχ 'tusca fruit' > Mk xunxetaχ • Ni xunfataχ • PCh *?ihnátah • PW *xⁿhátaχ
- (163) PM *xunxáta-(ju)'k 'tusca tree' > Mk xunxete-'k • Ni xunfata-juk • PCh *?ihnáta-k • PW *xⁿháte-q
- (164) PM *xunxáta-kat 'tusca grove' > Mk xunxete-ket • Ni xunfata-tfat • PCh *?ihnáta-kat

The following examples illustrate PM *k and *k' that fail to palatalize in Nivaçle. In almost all cases there is a back vowel either directly following or preceding the target consonant. In (169), irregular vowel metathesis (*â...a > *a...â) must have counterfered the palatalization. In (181), the non-back vowel in Nivaçle is likewise irregular, but in this case it is not clear whether the irregular vowel change counterfered the palatalization or whether the palatalization simply did not apply in the environment #_C_[+grave]V_[-back]. (183) and (184) are genuine exceptions; the latter may turn out to be a late loan from Maká.

- (165) PM *phinâk, *phinâ-j^h 'tobacco' > Mk finak, finha-j • Ni phinâk, phinxâ-j
- (166) PM *φts-u'k 'palm (*Copernicia alba*)' > Mk fits-uk • Ni φts-u'k • PCh *hwis<úk> • PW *x^wits<uk^w>
- (167) PM *(-)φ'ok ~ *(-)φ'ók (*-its) 'arrow' > Mk (-)f'ok (-its) • Ni (-)p'ok (-is)
- (168) PM *(-)jipku? (*-l) 'hunger' > Mk (-)jipku? (-l) • Ni jipku? / -jipku (-k)
- (169) PM *[ji]kála't 'to fry' > Mk [j]<a>kale't • Ni [ji]ka^hklâ't / -ka^hklâ't
- (170) PM *-kân (*-its) 'testicle' > Ni -kân-fij • PCh *-kân<is> • PW *-k^{án}<is>
- (171) PM *-ká's, *-kâs-él 'tail' > Ni -ká's, -kâs-ek • PCh *-ká's • PW *-k^{ás}, *-k^{ás}-el^h
- (172) PM *[ji]ká't-APPL 'to fall' > Ni [ji]ká't-APPL • PW *[ni]k^{át}-APPL
- (173) PM *kula'j ~ *kulá'j 'sun' > Ni <xum>kuk̄lá'j • PCh *kulá'j

- (174) PM *[ji]kúʔt̄ ‘to answer’ > Mk [j]<e>kuʔt̄ • Ni [ji]kuʔt̄ • PCh *[ʔi]kúhl-APPL
• PW *[ni]kʰút̄
- (175) PM *[wa]kumaʔχ ‘to run’ > Mk [we]kumaʔχ • Ni [βa]kumaʔx
- (176) PM *[t]kúʔm-APPL ‘to grab; to work’ > Mk [te]kuʔm-APPL • Ni
[tʰa]kuʔm-APPL • PCh *[ʔi]kúm-APPL • PW *[t]kʰú(ʔ)m-APPL
- (177) PM *-kun ~ *-kún ‘to eat (intr.)’ > Ni <tsak>kun • PCh *[tʰ]<ʔj>kun
- (178) PM *kús ~ *kúts ‘heat’ > Mk (?) kus (*Pyrocephalus rubinus*) • Ni kus • PCh
*kús-APPL
- (179) PM *-kút-ex ‘to meet’ > Mk [w(e)]kut-ix-uʔt̄ • Ni [βa]kut-ef • PCh
*[ʔi]kút-eh • PW *-kʰút-ex
- (180) PM *kúʔX₁₂ ‘sweat’ > Ni -ʔβ-kuʔx • PW *kʰúx^w
- (181) PM *khát ‘cactus’ > Mk khat-uʔk • Ni kxat • PCh *kâhát • PW *kʰáhát
- (182) PM *(-j)ku-j^h ‘trees (suffix)’ > Mk -(j)kw-i • Ni -ku-j • PCh *(-j)ku-j^h • PW
*-kʰu-j^h
- (183) PM *kʰalxó (*-ts) ‘armadillo sp.’ > Ni kʰakxo (-s) • PCh *kʰihló? (*-s) • PW
*kʰʰanhóh
- (184) PM *lâtsiki-juʔk ‘willow’ > Mk lattsiki-juʔk • Ni klâtsiki-juk
- (185) PM *-túʔk, *-tú-j^h ‘yica bag, load’ > Mk -túʔk, -tú-j • Ni -túʔk • PCh *-hlúk,
*-hlúj-... • PW *-túk^w, *-tú-j<is>
- (186) PM *-máʔk, *-mhá-j^h ‘powder, flour’ > Ni -mâʔk, -mxâ-j • PCh *-mák •
PW *-mók^w, *-mhó-j^h
- (187) PM *-muk, *-mhu-j^h ‘feces’ > Mk -<i>muk, -<i>mhu-j • Ni (-)<sa>muk,
(-)<sa>mxu-j • PCh *-<ʔj>muk • PW *-<ʔj>muk^w, *-<ʔj>mhu-j^h
- (188) PM *ʔmók (*-its) ‘zorzal bird (*Turdus* sp.)’ > Mk mok (-its) • Ni mok (-is) •
PCh *ʔmók (*-is)
- (189) PM *néwo(ʔ)k ‘wild manioc’ > Ni noʔok • PCh (?) *nʰwák • PW *néwok^w
- (190) PM *(-)niják, *(-)nijâ-j^h ‘rope, cord’ > Mk (-)nijak, (-)nijha-j • Ni -niják,
-nijâ-j • PCh *niják, *nijâ-j^h • PW *niják^w, *nijâ-j^h
- (191) PM *-pʰoʔk ~ *-pʰoʔk ‘fence’ > Ni -pʰoʔk • PCh *-pʰók • PW *-pʰok^w
- (192) PM *[ji]qákuʔ ‘to distrust’ > Mk [je]qekuʔ • Ni [ji]kaku • PCh *[ji]qákuʔ
• PW *[ji]qákʰu-APPL
- (193) PM *tänúk (*-its) ‘feline’ > Mk tenuk (-its) • Ni tanuk (-is) • PCh
tinúk (-is)

- (194) PM *t^əwo(?)k ~ *t^əwá(?)k ‘river’ > Ni *toβok* ~ *toβák* • PCh *t^əwok ~ *t^əwák
• PW *t^əwok^w
- (195) PM *-t(á)ko? (*-l) ‘face’ > Mk *-tko<jek>* • Ni *-tako?* (-k) • PCh *-t^oko? (*-l)
• PW *-ták^o (*-l^h)
- (196) PM *tlúʔk ‘blind’ > Ni *taklúʔk* • PCh *t^olúk • PW *tilúk^w
- (197) PM *túku(?)t)s ‘ant’ > Ni *tukus* • PCh *túk^{us}
- (198) PM *-^ətxoʔk ~ *-^ətxóʔk, *-^ətxóko-wot ‘uncle’ > Mk *-txoʔk* • Ni *-^ətxoʔk*,
-^ətxoko-βot • PCh *-<i>tók, *-<i>tóko-wot • PW *-<wi>thok^w
- (199) PM *tsänúʔk ‘duraznillo trees’ > Ni *tsanuʔk* • PCh *sinúk • PW *tsinúk^w
- (200) PM *-(j)uk ‘tree (suffix)’ > Mk *-(j)uk* • Ni *-(j)uk* • PCh *-(j)uk • PW
*-(j)uk^w
- (201) PM *-wáʔk ‘bad mood’ > Mk *-wak* • Ni *-βáʔk* • PCh *-wák • PW *-wák^w
- (202) PM *X₁₃óʔk ‘palo santo (*Bulnesia sarmientoi*)’ > Ni *xoʔk* • PCh *hók • PW
*hók^w
- (203) PM *-X₁₃uʔk, *-X₁₃ú-j^h ‘firewood’ > Ni *-xuʔk*, *-xu-j* • PCh *(?ítâh)-huk •
PW *-huk^w, *-hú-j<is>
- (204) PM *ʔaʔnqoʔk ‘paralytic’ > Mk *onqok* • Ni *ʔaʔnkoʔk*

In the following examples, PM *x does not palatalize in Nivaçle. In almost all cases there is a back vowel either directly following or preceding the target consonant. The irregular change PM *á > Ni a in (220) must have counterfed the palatalization of velars.

- (205) PM *-φχúx, *-φχú-ts ‘finger’ > Mk *-fux* • Ni *-φxux*, *-φxu-s* ‘toe’ • PCh
*-hwu-ké? • PW *-x^wúx^w, *-x^wú-s
- (206) PM *jixá(?) ~ *jixá(?) ‘to be true’ > Mk *ixa* • Ni *jixá?* • PCh *?ihá<wet>
- (207) PM *ji?ixâtaχ, *ji?ixâta-ts ‘ocelot’ > Mk *i?ixataχ*, *i?ixate-ts* • Ni *jixâtax*,
jixâta-s
- (208) PM *-k’áxe? (*-l) ‘arrow’ > Mk *-qaxi?* (-l) • Ni *-k’áxe* • PCh *-k’áhe? (*-l)
• PW *-k’áhe (*-l^h)
- (209) PM *k’alxó (*-ts) ‘armadillo sp.’ > Ni *k’akxo* (-s) • PCh *k’ihló? (*-s) • PW
*k’ánhóh
- (210) PM *ŋ-xáte? (*-l) ~ *ŋ-xáti? ‘dream, sleepiness’ > Mk *-nixati?* (-l) • Ni
nxáte (-k) • PCh *?ihnáti? • PW *naháti

- (211) PM **tiłáʔx* ‘to carry on one’s shoulders’ > Mk *tiłoʔx* / *-łiłoʔx* • Ni *tiłáʔx* • PCh **[ʔi]tiłlâh* • PW **tiłâç*
- (212) PM **xoxaw-uʔk* [?] ~ **xoxi-juʔk*, **-ku-j* ‘palo cruz (*Tabebuia nodosa*)’ > Mk *xoxew-uʔk*, *xoxew-kw-i* • Ni *xoxi-juk*, *xoxi-ku-j*
- (213) PM **tux* ‘to eat (tr.)’ > Mk *tux* / *-łux* • Ni *tux* • PCh **[ʔi]túM* • PW **tux^w*
- (214) PM **-t’ox* ~ **-t’óx* ‘aunt’ > Ni *-t’ox* • PCh **-<i>t’óh* • PW **-<wi>t’oç*
- (215) PM **-ʔtxoʔk* ~ **-ʔtxóʔk*, **-ʔtxóko-wot* ‘uncle’ > Mk *-txoʔk* • Ni *-ʔtxoʔk*, *-ʔtxoko-βot* • PCh **-<i>tók*, **-<i>tóko-wot* • PW **-<wi>thok^w*
- (216) PM **xunxátaç* ‘tusca fruit’ > Mk *xunxetaç* • Ni *xunfataç* • PCh **ʔihnátah* • PW **xnhátach*
- (217) PM **xunxáta-(ju)ʔk* ‘tusca tree’ > Mk *xunxete-ʔk* • Ni *xunfata-juk* • PCh **ʔihnáta-k* • PW **xnháte-q*
- (218) PM **xunxáta-kat* ‘tusca grove’ > Mk *xunxete-ket* • Ni *xunfata-tfat* • PCh **ʔihnáta-kat*
- (219) PM **-ʔâx* (**-its*) ‘skin, bark’ > Mk *-ʔax* (*-its*) • Ni *-ʔâx* (*-is*) • PCh **-ʔâh*, **-ʔâh-és* • PW **-t-ʔâç*, **-t-ʔâh-és*
- (220) PM **[j]éjxâts-han* ‘to teach’ > Mk *[j]ixats<hen>* • Ni *[j]ejxats-xan* / *-ʔejxats-xan* • PCh **[j]éjâhâs<an>*

In a number of morphemes, the alternation between velar and postalveolar consonants is still synchronically active in Nivaçle. This can happen when a Proto-Mataguayan consonant is found in different environments in the consonantal and vocalic allomorphs of the same stem (cf. §5.2). In the following example, PM **x* palatalizes in the singular, because there is no adjacent non-back vowel, but fails to palatalize in the plural, because the metathesis (§5.2.5) creates context for palatalization blocking: the back vowel *â* is now separated from *x* by a [+grave] (non-coronal) consonant.²

- (221) PM **-táwâʔx*, **-táwxä-ts* ‘(abdominal) cavity’ > Mk *-tawêʔx*, *-tawxe-ts* • Ni *-tâβaʔç*, *-tâβxa-s* • PCh **-tóweh* • PW **-tóweç*

²In the speech of one of the co-authors of Campbell et al. (2020), representative of the Pilcomayean subdialect of Chishamnee Lhavos, this pattern is also found in stems where the intervening consonant is coronal: *kłutsef*, *kłutse-* ‘bow’. This must be a local innovation, since the regular form *kłutse-s* is abundantly attested in the Central Paraguayan subdialect of Chishamnee Lhavos (Campbell et al. 2020: 10), as well as in all other sources on the language, including Stell (1987), Fabre (2014), Seelwische (2016).

Another instance of an alternation between velars and postalveolars is seen in the verb ‘to go away’, where the root vowel varies throughout the paradigm (see §5.4). In addition to the forms reconstructible to Proto-Mataguayan, the relation between the choice of *k* and *tf* and the backness of the adjacent vowel is seen in forms such as *fn-âk* ‘we.INCL go away’, *n-âk* ‘(that) s/he go away’, and *ni?j-itf* ‘I don’t go away’ (Fabre 2014: 146).

- (222) PM 1 **h-âk*, 2 **ʈ-âk*, 3 **[j]ik*; CISL **n-âk* ‘to go away’ > Mk 1 *h-ak*, 2 *ʈ-ak*, 3 *ik*; CISL *n-ek* • Ni 1 *x-âk*, 2 *ʈ-âk*, 3 *[j]itf*; CISL *n-atf* • PCh 1 *ʔâk*, 2 **hl-ék*
• PW 2 **ʈ-eq*, 3 **[j]iq*; CISL **n-eq*

Finally, and most importantly, velars and postalveolars alternate at the left edge of some suffixes, whose allomorphs are chosen depending on the final segment(s) of the stem. Quite expectedly, in all cases the initial segment of the suffix is followed by a non-back vowel. Proto-Mataguayan suffixes that start with a velar consonant followed by a back vowel have non-alternating reflexes in Nivaçle (as in *-xop* ‘next to, surrounding’), because velar consonants never palatalize in Nivaçle if there is an adjacent back vowel.

- (223) PM **-kat* ‘collective of plants’ > Mk *-ket* • Ni *-tfat* / *-kat* • PCh **-kat* • PW **-kʲat* (**-at* after **kʷ*, **q*)
- (224) PM **-ke?* (**-jʰ*) ‘feminine’ > Mk *-ki?* (-*j*) • Ni *-tfe* / *-ke* (-*j*) • PCh **-ke?* (**-jʰ*)
• PW **-kʲe* (**-jʰ*)
- (225) PM **-xäʔn(e?)* ‘verbal plural (suffix)’ > Ni *-faʔne?* / *-xaʔne?* • PCh **-heʔn(e?)*
• PW **-heʔn*
- (226) PM **-xijʰ* ‘recipient’ > Mk *-xij* • Ni *-fij* / *-xij* • PW **-hih*

Gutiérrez (2015b: 64) and Campbell et al. (2020: 54–55) document the alternation in question for suffixes such as *-xam* / *-fam* ‘on top of, up, through’; *-xaʔne* / *-faʔne* ‘downwards’; *-kifam* / *-tifam* ‘upward’; *-xi* / *-fi* ‘indefinite location, indefinite direction; intensive’; *-xij* / *-fij* ‘concave container’; *-kʲe* / *-tʲe* ‘along; distributive’; *-ke* / *-tfe* ‘feminine’; *-kat* / *-tfat* ‘group of plants’. In all these suffixes, the initial consonant (followed by a non-back vowel) surfaces as postalveolar if the preceding vowel is front, even if a consonant intervenes (227), but as velar if the preceding vowel is back, if a [+grave] (non-coronal) consonant intervenes (228).

(227) Nivaçle (Gutiérrez 2015b: 64)

- a. ʎ-néʔt-fam
2SG-get-LOC:up
'you get up'
- b. jitáʔ-fam
scrub-LOC:up
'very thick scrubland'

(228) xa-xúʔx-xam ʎa=tʔún
1SG-bite-LOC:up F.DET=cracker
'I bit the cracker'

If a coronal consonant separates the suffix from a back vowel, the initial consonant of the suffix does palatalize, as in (229).³

(229) Nivaçle (Gutiérrez 2015b: 66)

- a. -táʔʎ-fam
come.from-LOC:up
'to come from'
- b. ji-kxúʔs-fam
1SG-knee-LOC:up
'on my knee'

Note that the instances of *k* derived from erstwhile $*k\bar{l} < *l$ (§7.1.1.4) behave as coronal in what concerns palatalization blocking in Nivaçle. This can be seen in words such as ʎa-ntákʃitʔa 'grandson (male ego)', where the postalveolar fricative *ʃ* occurs despite being separated from a back vowel *á* by a prima facie [+grave] consonant *k*; the fact that this *k* goes back to $*k\bar{l}$ is clear from related forms such as Ni ʎa-ntákʃeʔe 'granddaughter (male ego)' (data from Campbell et al. 2020: 89). The same explanation may account for *tʔaklák-tʃat* 'scrub', derived from *tʔaklák* 'weed' and explicitly stated to be an exception by Stell (1987: 211).

Genuine exceptions from the palatalization rule are very rare in Nivaçle. Gutiérrez (2015b: 66–67) mentions the form *tsanku-kat* 'stand of duraznillo trees';

³Although Campbell et al. (2020: 54) fail to note the key role of the [±grave] feature of the intervening consonants for the blocking of palatalization in Nivaçle, they still give some interesting examples that shed light on the behavior of consonants such as *s*: compare *tox=kʔe* 'far' and its plural *to-s=ʃe*, *?akâx=xi=?in* 'rich' and its plural *?akâ-s=ʃi=?in*. The possible role of coronal consonants as an intervening factor had already been mentioned by Gutiérrez (2015b: 66).

according to Stell (1987: 211), this form is typical of the Chishamnee Lhavos variety and may thus represent a late dialectal development. Stell (1987: 210) also gives an unexplainable form *ʃeklã-tʃat* ‘group of trees (*Prosopis* sp.)’.

7.1.1.4 Delateralization of PM **l* > **k̠* > *k* in codas

The consonant *k̠* cannot occur in Nivaçle codas (except dialectally when followed by a glottal stop, see §7.2.4). Instead, a productive rule delateralizes it to *k* in that position.

(230) Nivaçle (Gutiérrez 2015b: 225–226)

- a. ʎa-xpek̠-is
3-shadow-PL
‘her/his shades’
- b. ʎa-xpek
3-shadow
‘her/his shade’
- c. Ø-βak̠leʔtʃ
3-walk
‘her/his shades’
- d. Ø-βaktʃe-mat
3-walk-defect
‘s/he limps’

Campbell & Grondona (2007: 8–9) ascribe this alternation to a positionally conditioned diachronic sound change **k̠* > *k* that must have occurred in the history of Nivaçle. Comparative data show that this is indeed the case: PM **l* indeed evolved into *k* in the coda position in Nivaçle, as also noted in Gutiérrez (2015b: 253).

- (231) PM **-ápil* ‘to return thither’ > Mk *[w]apil* • Ni *[β]apek* • PCh **[j]ápil* • PW **[j]ápil^h*
- (232) PM **(-é)l* ‘PL’ > Mk *-l* • Ni *-(e)k* • PCh **(-(é)l* • PW **-(é)l^h*
- (233) PM **[ji]ɸál* ‘to tell’ > Mk *n(i)-fel-im* • Ni *n(i)-ɸak* / *n(i)-ɸak̠-* • PCh **[ʔi]hwél* • PW **[ʔi]x^wél^h* / **[ʔi]x^wél-*
- (234) PM **[t]píl* ‘to return hither’ > Mk *[t(e)]pil* • Ni *[t(a)]pik* ~ *[t(a)]pek* • PW **[t]píl^h*

- (235) PM $*(-)X_{23}pél$ ‘shadow’ > Ni *xpek* • PCh $*-pél$ • PW $*hpél^h / *-hpe^h$
- (236) PM $*ʔáʔteʔl$ ‘orphan’ > Mk *aftiʔl* • Ni *ʔáʔteʔk*
- (237) PM $*ʔál(V)tse(?)\chi$, $*ʔál(V)tse-ts$ ‘cháguar (*Deinacanthon urbanianum*)’ > Ni *ʔáktsex*, *ʔáktse-s* • PCh $*ʔál^sah$, $*ʔál^se-s$ • PW $*ʔáletsax$

7.1.1.5 Deaffrication of PM $*ts > s$ in codas

As discussed in §2.1.3, the occurrence of *ts* is banned from codas in Nivaçle, except when the onset of the next syllable is *x* or *ʔ* (see footnote 2). This restriction arose as a result of a diachronic deaffrication of PM $*ts > s$ in codas, shared with Wichí (§9.1.1.4) and possibly Chorote (§8.1.1.1).

- (238) PM $*(-)ʔétäʔts$ ‘root’ > Mk *fitets* • Ni $-ʔetaʔs$ • PCh $*-hwétus$ • PW $*(-)x^wétes$
- (239) PM $*jijáʔts$ ‘dew’ > Mk *ijeʔts* • Ni *jijaʔs* • PCh $*ʔijés-tah$ • PW $*ʔijás$
- (240) PM $*-léts$ ‘offspring’ > Mk $-lits$ • Ni $-k̄lēs$ • PCh $*-lés$ • PW $*-lés$
- (241) PM $*-tāts-uʔk$, $*-tāts-ku-j^h$ ‘trunk’ > Ni $-tats-uk$, $-tas-ku-j$ • PCh $*(-)tés-uk$, $*-tés-ku-j^h$
- (242) PM $*qatiʔts$, $*qatits-él$ ‘star’ > Ni *katiʔs* • PCh $*qatés$, $*qates-él$ • PW $*qates$, $*qatés-el^h$
- (243) PM $*-ʔaqhuʔts \sim *-ʔaqhúʔts$ ‘knee’ > Mk $-aqhuʔts$ • Ni $-(ʔa)kxuʔs$ • PCh $*-ʔaqús$

In some etyma, the erstwhile presence of an affricate in certain forms is suggested by the synchronically active alternations in Nivaçle: compare Ni $-fetats-ij$ ‘roots’, $-(ʔa)kxats-u-j$ ‘knees’, $-tats-uk$ ‘trunk’ vs. $-fetas$ ‘root’, $-(ʔa)kxuʔs$ ‘knee’, $-tas-ku-j$ ‘trunks’ (Gutiérrez 2015b: 45). Campbell et al. (2020: 50) note that this alternation is restricted to nouns in Nivaçle, whereas in verbs *ts* alternates with *t* instead: compare Ni $xa-nuts-xa-jan$ ‘I cause him/her to be angry’, $kuts-xanax$ ‘thief, robber’, $xa-taʔkits-xat$ ‘I make him/her/it dizzy’ vs. $xa-nut$ ‘I get angry’, $ʔa-t-kut$ ‘you steal’, $tsi-taʔkit$ ‘I am dizzy, I get dizzy’ (Campbell et al. 2020: 50). The diachronic origins of the latter alternation are unknown because the relevant roots do not reconstruct back to Proto-Mataguan.

7.1.1.6 PM $*ʔ$, $*ʔ$ > Ni p , t

Nivaçle also participated in yet another sound change shared with Chorote and Wichí, but not with Maká, which consists of the fortition of the Proto-Mataguan glottalized fricatives (phonologically possibly analyzable as tauto-

syllabic sequences of a fricative and a glottal stop) to glottalized stops: PM * ϕ' , * t' > Ni p' , t' . The sequence * $k\phi'$, however, changed to Ni k' , as in (246).

- (244) PM *- $\phi'i(?)$ ‘foot’ > Mk - $f'i?$ • Ni - $p'i-k'o$ ‘heel’
- (245) PM *(-) $\phi'ok$ ~ *(-) $\phi'ók$ (*-its) ‘arrow’ > Mk (-) $f'ok$ (-its) • Ni (-) $p'ok$ (-is)
- (246) PM *[ji]k $\phi'äs$ ~ [ji]k $\phi'ás$ ‘to be torn open’ > Ni [ji]k' as -APPL • PCh * $[ʔi]k'(w)ós$ • PW * $[hi]k^w'és$ -APPL
- (247) PM * $t'áX_{23}te(?)$ (*- j^h) ‘her breast’ > Ni $t'-axte$ (- j) • PCh * $t'-áhate?$ (*- j^h) • PW * $t'-áte$ (*- j^h)
- (248) PM * $t'-áx$ ‘skin, bark’ > Mk $t'-ax$ • Ni $t'-áx$ • PCh * $t'-áh$ • PW * $t'-áx$
- (249) PM * $t'-äs\chi a'n$, * $t'-äs\chi án$ -its ‘meat’ > Mk $t'-ese'n$, $t'-esen$ -its • Ni $t'-asxa'n$, $t'-asxan$ -is • PCh * $t'-isá'n$, * $t'-isán$ -is • PW * $t'-isa'n$, * $t'-isán$ -is
- (250) PM * $t'-i$ (*- l) ‘liquid, juice’ > Mk $t'-i?$ (- l) • Ni $t'-i?$ (- k) • PCh * $t'-i?$ (*- l) • PW * $t'-i$ (*- l^h)
- (251) PM * $t'-ú\acute{t}$ ‘you urinate’ > Mk $t'-u\acute{t}$ • Ni $t'-u\acute{t}$ • PCh * $<h^2>t'-ú\acute{t}$ • PW * $<\acute{t}>t'-ú\acute{t}$
- (252) PM * $t'-ú\acute{t}u(?)$ ‘her/his urine’ > Ni $t'-u\acute{t}u$ • PCh * $t'-ú\acute{h}lu?$ • PW * $t'-ú\acute{t}u$

As a result of the sound change PM * t' > (* t'), Nivaçle now displays a morphophonological rule which converts the underlying sequence / $t'?$ / into t' (rather than t' , as in Maká). The rule is no longer entirely productive in Nivaçle, since the sequence / $t'?$ / may occur within a morpheme, as in *fni\acute{t}á* ‘lizard (*Teius teyou*)’.

7.1.1.7 Deglottalization of sonorants

Although the glottalized sonorants of Proto-Mataguyan (* w , * l , * j , * m , * n) are normally preserved in Nivaçle as sequences of the type “ $?$ + sonorant” ($^?C$ in our notation), the glottalization fails to surface in some environments. Most notably, glottalized sonorants are deglottalized in word-initial position in Nivaçle, merging with their plain counterparts. Note that in (257), (260)–(262), and (264) the glottalization does surface after prefixes, even if not all of our sources on the language document it consistently: *la- $nâjif$* ‘your way’ (Fabre 2014: 318), *ta- $\beta ak\acute{let}f$* ‘you walk’ (Seelwische 2016: 312), *ja- $\beta é'ta$* ‘I am alone’ (Seelwische 2016: 312), *ji- βoj -ej* ‘my blood.PL’ (Fabre 2014: 189), *sta- $\beta â't$* ‘we.INCL climb, rise’ (Campbell et al. 2020: 234). The root in (258), by contrast, is attested with a plain β even after prefixes in all available sources (Stell 1987, Fabre 2014, Seelwische 2016, Campbell et al. 2020).

- (253) PM *^ʔlájX₂₃VnâX₁₃â ‘Azara’s night monkey’ > Ni *k̄lajxenâxâ* • PCh *^ʔléhjanâhâ-ke?
- (254) PM *^ʔmók (*-its) ‘zorzal bird (*Turdus sp.*)’ > Mk *mok* (-its) • Ni *mok* (-is) • PCh *^ʔmók (*-is)
- (255) PM *^ʔna? ‘this.M (within one’s hands’ reach)’ > Mk *ha-^ʔne?* • Ni *na?* • PCh *^ʔná?
- (256) PM *^ʔnátu(h), *^ʔnátu-ts ‘day, world’ > Mk *ne^ʔtu* (-ts) • Ni *na^ʔtu* (-s) • PCh *^ʔnáhl<ekis> ~ *^ʔnáhl<ekes> ‘midday’
- (257) PM *(-)^ʔnáji^ʔx, *(-)^ʔnájx-aj^h ‘path’ > Ni *nájiʔf*, (-)^ʔnájf-aj / -^ʔnájiʔf • PCh *(-)^ʔnájih, *(-)^ʔnáhj-aj^h • PW *(-)^ʔnájiχ, *(-)^ʔnáhj-aj^h
- (258) PM *^ʔwátshan ~ *^ʔwátsχan ‘to be healthy, alive’ > Ni *batsxan* • PCh *^ʔwása^ʔn • PW *^ʔwátshan
- (259) PM *^ʔwánXâ^ʔtâχ, *^ʔwánXâ^ʔtâ-ts ‘rhea’ > Mk *waatâχ* • Ni *βânxâ^ʔtâx*, *βânxâ^ʔtâ-s* • PCh *^ʔwánhlâh, *^ʔwánhlâ-s • PW *wá^ʔn^ʔtâχ, *wá^ʔn^ʔtâ-s
- (260) PM *^ʔwäle^ʔk ‘to walk’ > Mk <-i>^ʔwelki-^ʔmet ‘to limp’ • Ni *bakle^ʔtf* • PCh *^ʔ[ʔi]^ʔwélek • PW *^ʔweleq
- (261) PM *^ʔwé^ʔt=a? ‘one’ > Mk <e>wi^ʔt-e? • Ni *bé^ʔt<a>* / -^ʔbé^ʔt<a>
- (262) PM *(-)^ʔwo^ʔj ‘blood’ > Ni *βo^ʔj* / -^ʔβoj-ej • PCh *(-)^ʔwój-is • PW *^ʔwoj-ís / *^ʔwój-is
- (263) PM *^ʔwósâ(°)q ~ *^ʔwósâ(°)k ‘butterfly’ > Ni *βosâk* • PCh *^ʔwósâk
- (264) PM *^ʔwV^ʔt ~ *^ʔwV^ʔt ‘to climb’ > Mk *we^ʔt* • Ni *βâ^ʔt* • PCh *^ʔ[ʔi]^ʔwú^ʔt • PW *^ʔ[t]^ʔwu^ʔt ~ *^ʔ[t]^ʔwú^ʔt

In the postconsonantal position, most of our sources (with the notable exception of Campbell et al. 2020) rarely if ever indicate the glottalization of sonorants. Gutiérrez (forthcoming) has recently described the phonetic realization of such clusters as involving creaky voice phonation either in the sonorant itself (*tas-βân* [tʰasβʌn] ‘you see me’, *βât-βan* [βatʰβʌn] ‘s/he sees herself/himself’) or in the preceding segment, if it is also a sonorant (*jin-βân* [jinβʌn] ‘they see us’).

- (265) PM **sláqha(°)j*, **sláqhaj-its* ‘wild cat’ > Ni *fl̄lâkxaj* ~ *sk̄lâkxaj* (-is) • PCh **s^ʔláhqaj?* ~ **s^ʔláhqâj?* (*-is) • PW **siláhqâj*
- (266) PM **[ji]s^ʔwun* ~ **[ji]s^ʔwún* ‘to like, to love’ > Mk *[ji]suʔun* • Ni *[ji]s^ʔβun* • PCh **[ʔi]s^ʔʔún*

7.1.1.8 Deglottalization in codas in “weak” syllables

As described by Gutiérrez (2016b: 183–184), Nivaçle systematically deletes postvocalic instances of /ʔ/ whenever it does not get parsed to the head syllable of the foot; in other words, postvocalic /ʔ/ can only surface in syllables that carry primary or secondary stress in Nivaçle. Importantly, in Gutiérrez’s (2016b) analysis /ʔ/ accounts not only for the occurrences of [ʔ] in codas, but also for what we represent as preglottalized codas (ʔC) in this book: in Gutiérrez’ account, these are analyzed as underlying sequences of the type /ʔC/, where /ʔ/ is parsed to the nucleus. This is clearly seen in some lexemes that either have or lack /ʔ/ in different inflected forms, where stress falls on different syllables (see §7.1.3 on stress and prosodic feet in Nivaçle).

(267) Nivaçle (Gutiérrez 2016b: 183–184)

- a. (taklóʔk)
weed
‘weed’
- b. ta(k̄lok-tfát)
weed-plant_group
‘scrub’
- c. (jijéʔ)
caraguatá
‘caraguatá’
- d. ji(je-tfát)
caraguatá-plant_group
‘a place where the caraguatá plant lives’
- e. (ʃinβóʔ)
honey
‘honey’
- f. ji-(ʃinβo)
1.POSS-honey
‘my honey’

This rule is a direct consequence of a diachronic sound change that deleted the coda *ʔ and deglottalized erstwhile preglottalized codas in unaccented syllables in the history of Nivaçle. Note that in some cases the position of the stress may have changed at least in some varieties of Nivaçle (see §7.1.3); it is the position of the Proto-Mataguayan accent that matters. The following examples instantiate

the loss of *ʔ in unaccented syllables, including the glottalization in preglottalized codas, as in (275) and (286).

- (268) PM **t-á(-j^h)-xiʔ* (*-l) ‘her/his mouth’ > Mk *t-e<xiʔ>* (-l) • Ni *t-a<fi>* (-k) • PCh (?) **hl-á<ajʔ>* • PW *t-áj-hi* (*-l^h)
- (269) PM **t-ániʔ*’s ‘its stinger’ > Mk *t-aniʔ*’s • Ni *t-ánis* • PCh **hl-ánis* • PW (?) **t-áʔni*
- (270) PM **t-áseʔ* ‘her/his daughter’ > Mk *t-asiʔ* • Ni *t-áse* • PCh **hl-áseʔ* • PW **t-áse*
- (271) PM **-phájXoʔ* (*-l) ‘coal’ > Ni *-phajxoʔ* (-k) • PW **-x^wijho* (*-l^h)
- (272) PM **-phálʔuʔ* (*-ts) ‘son-in-law, brother-in-law’ > Mk *-feluʔ* (-ts) • Ni *-pháklʔuʔ* (-s) ‘brother-in-law’ • PCh **-hwíluʔ* [?] *-hwéluʔ* (*-s) ‘son-in-law’
- (273) PM **(-)háqkeʔ* ‘well’ > Mk *haqqiʔ* ‘river’ • Ni *-xáke* ‘dry well’ • PCh **-háákeʔ* ‘artificial well’
- (274) PM **(-)jipkuʔ* (*-l) ‘hunger’ > Mk *(-)jipkuʔ* (-l) • Ni *jipkuʔ* / *-jipku* (-k)
- (275) PM **[ji]kálaʔ* ‘she/he fries’ > Mk *[j]<a>kaleʔ* • Ni *[ji]ka^wlâʔ*
- (276) PM **-k’áxeʔ* (*-l) ‘arrow’ > Mk *-qaxiʔ* (-l) • Ni *-k’áxe* • PCh **-k’áheʔ* (*-l) • PW **-k’áhe* (*-l^h)
- (277) PM **-k’inxáʔ* [?] **-k’inxáʔ* (*-wot) ‘younger sister’ > Mk *-k’inχaʔ* [?] *-k’inxaʔ* • Ni *-tʔinxá* (-βot) • PCh **-k’ihnâʔ* (*-wot) • PW **-k’ínhâ*
- (278) PM **-tíʔwteʔ* ‘heart’ > Mk *-titiʔ* • Ni *-tíʔβte*
- (279) PM **ñ-xáteʔ* (*-l) [?] **ñ-xátiʔ* ‘dream, sleepiness’ > Mk *-nixatiʔ* (-l) • Ni *nxáte* (-k) • PCh **ʔihnâtiʔ* • PW **nahâti*
- (280) PM **ñjánxteʔ* ‘tapeti rabbit, cavy’ > Mk *nijaxtiʔ* • Ni *nânxate* • PCh **ñáhâteʔ* • PW **xnáte*
- (281) PM **[ji]péʔj-aʔ* ‘to hear’ > Mk *[ji]piʔj-eʔ* • Ni *[ji]peʔj-a* • PCh **[ʔi]péʔj-aʔ*
- (282) PM **-pxúseʔ* (*-j^h) ‘beard’ > Mk *-<a>pxusiʔ* (-j) • Ni *-påse* (-j) • PCh **-púseʔ* (*-j^h) • PW **-páse* (*-j^h)
- (283) PM **[ji]qákuʔ* ‘to distrust’ > Mk *[je]qekuʔ* • Ni *[ji]kaku* • PCh **[ji]qákuʔ* • PW **[ji]qák^ju-APPL*
- (284) PM **-tátseʔ* (*-j^h) ‘eyelash’ > Mk *-tetsiʔ* (-j) • Ni *-tátse* (-j) • PCh **-táseʔ* (*-j^h)
- (285) PM **-wháʔjaʔ* ‘spouse’ > Mk *-wheʔjeʔ* • Ni *-xaʔja* • PCh **-hwáʔjaʔ*

- (286) PM **ɬ-xáteʔ* 'head' > Ni *ɬ-fatetf* • PCh **hl-étek* • PW **ɬ-éteq*
 (287) PM **xéjàʔ* (*-l) 'bat' > Mk *xajaʔ* (-l) • Ni *fejâ* (-k) • PCh **<ʔa>héjaʔ* (*-l)
 (288) PM **-xéleʔ* 'dirt' > Mk *-xiliʔ* • Ni *-fek̄le*
 (289) PM **ʔófoʔ* (*-ts) 'pigeon' > Mk *ofoʔ* (-l) • Ni *ʔófo* (-s) • PCh **ʔóhwoʔ* (*-s)

One exception is given in (290), where the PM accent is reconstructed based on evidence from Chorote. Synchronically, the root in question has irregular final stress in Nivaçle (Analía Gutiérrez, 2023, personal communication). Consequently, the final glottal stop fails to be deleted.

- (290) PM **ʔéjaʔ* (*-l) 'mosquito' > Mk *ijeʔ* (-l) • Ni *jijaʔ* • PCh **ʔéjaʔ* (*-l)

As is clear from the discussion in Gutiérrez (2016b), the deglottalization applies at a relatively shallow level in Nivaçle and does not generally alter the underlying representation of the morphemes. The following examples show that in words with an established Mataguanan etymology the deglottalization applies word-finally only in forms where the accent is non-final.

- (291) Nivaçle (Seelwische 2016: 129, 357, 382)

- a. (ɬ-ɸáj)xo
3.POSS-charcoal
'its charcoal'
- b. (ɸajxóʔ)
charcoal
'charcoal'
- c. (ʔa-jíp)ku
2.POSS-hunger
'your hunger'
- d. (jipkúʔ)
hunger
'hunger'
- e. (ji-ʃá)tetf
1.POSS-head
'my head'
- f. (βàt)-(ʃatéʔtʃ)
GNR-head
'one's head'

It is important to note that although PM enclimena (§4.2.1) lacked an underlying accented syllable, they do not show the deletion of *ʔ in Nivaçle. This entails that at the time when the deglottalization occurred in Nivaçle, erstwhile enclimena had already developed a default final stress, preserved to this day in Nivaçle.

- (292) PM **φajXoʔ* ‘coal’ > Ni *φajxoʔ* • PCh **hwa(h)jo-* • PW **x^wijho(?)*
- (293) PM **jiʔjâʔX₁₂* ‘jaguar’ > Ni *jiʔjâʔx* • PCh **ʔaʔjáh* • PW **haʔjâx*
- (294) PM **jiʔlâʔ* ‘tree’ > Ni *jiʔklâʔ* • PCh **ʔaʔlâʔ* • PW **haʔlâ*
- (295) PM **jitʔâʔ* ‘vulture’ > Ni *jitʔâʔ* • PCh **ʔatʔâʔ* • PW **hatʔâʔ(?)*
- (296) PM **[ji]kaʔx* [?] ~ **[ji]kâʔx* ‘to take away’ > Mk *[j]<e>kaʔx* • Ni *[ji]tfaʔx* • PW **[ji]kâʔx*
- (297) PM **-káʔs* ‘tail’ > Ni *-káʔs* • PCh **-káʔs* • PW **-kⁱâs*
- (298) PM **[ji]lâʔj* ‘to withstand’ > Ni *[ji]klâʔj* • PCh **[ji]lâj-eh* • PW **[ji]lâj*
- (299) PM **-lâʔ* ‘domestic animal’ > Ni *-klâʔ* • PCh **-lá<hwah>* • PW **-lâʔ*
- (300) PM **-ʔliʔx* ‘language, word’ > Mk *-ʔlix<eʔ>* • Ni *-ʔkliʔf* • PCh **-ʔlih*
- (301) PM **-tuʔk* ‘yica bag, load’ > Mk *-tuk* • Ni *-tuʔk* • PCh **-hlúk* • PW **-tuk^w*
- (302) PM **-njiʔx* ‘smell’ > Mk *-njiʔx* • Ni *-niʔf* • PCh **-nih* • PW **-niç*
- (303) PM **-pʔoʔk* ~ **-φʔoʔk* ‘fence’ > Ni *-pʔoʔk* • PCh **-pʔók* • PW **-pʔok^w*
- (304) PM **-pʔoʔt* ‘lid’ > Mk *-pʔot<oʔ>* • Ni *-pʔoʔt* • PCh **-pʔót* • PW **-pʔot*
- (305) PM **qatiʔts* ‘star’ > Ni *katiʔs* • PCh **qatés* • PW **qates*
- (306) PM **-sâʔt* ‘vein’ > Mk *-<ʔa>saʔt* • Ni *-sâʔt* • PCh **-sât-* • PW **-sât*
- (307) PM **tijâʔx* ‘to shoot, to throw’ > Mk *tijaʔx* / *-tijaʔx* • Ni *tijâʔx* • PCh **[ʔi]tijâh* • PW **tijâx*
- (308) PM **tiłâʔx* ‘to carry on one’s shoulders’ > Mk *tiłoʔx* / *-tiłoʔx* • Ni *tiłâʔx* • PCh **[ʔi]tiłâh* • PW **tiłâx*
- (309) PM **wijeʔ* ‘caraguatá (*Bromelia serra*)’ > Ni *βijeʔ* ~ *jijeʔ* • PCh **wijéʔ* • PW **ʔwujeʔ(?)*
- (310) PM **ʔwäleʔk* ‘to walk’ > Mk *-<i>ʔwelki-ʔmet* ‘to limp’ • Ni *βakleʔtf* • PCh **[ʔi]ʔwélek* • PW **ʔweleq*
- (311) PM **-ʔwät* ‘place’ > Mk *-ʔwet* • Ni *-ʔbat* • PCh **-ʔwét* • PW **-ʔwet*
- (312) PM **-xa* ‘price’ > Ni *-faʔ* • PW **-ha*

- (313) PM $*...X_{23}a^?t$ ‘earth’ > Ni <kots> $xa^?t$ • PCh $*<?a>h<n>át \sim *<?ã>h<n>át$ • PW $*<hon>hat$
- (314) PM $*X_{13}on-xa^?x$ ‘night’ > Ni <xon> $fa^?x$ • PW $*<hon>a\chi$
- (315) PM $*-X_{13}u^?k$ ‘firewood’ > Ni $-xu^?k$ • PCh $*(?itâh)-huk$ • PW $*-huk^w$
- (316) PM $*t-’äs\chi a^?n$ ‘meat’ > Mk $t-’ese^?n$ • Ni $t-’asxa^?n$ • PCh $*t-’isá^?n$ • PW $*t-’isa^?n$

7.1.1.9 Glottal insertion in monosyllables

Synchronically, the minimal word in Nivaçle is constituted by CVC (Gutiérrez 2015b: 118, 132ff.). This is likely a result of an innovation whereby all monosyllabic roots of the shape CV underwent insertion of a word-final $?$, a process shared with Maká. It is noteworthy that the epenthesis occurred even in monosyllabic roots that never constitute a morphological (or phonological) word by themselves, as seen in (318)–(319).

- (317) PM $*-e$, $*-é-l$ ‘thorn’ > Mk 3 $t-i?$ • Ni $-e?$ (-k) • PCh 3 $*hl-é?$ ($*-l$) • PW $*-t-e$
- (318) PM $*-ka$, $*-ká-l$ ‘tool, skillful person’ > Ni $-tfa?$ (-k) • PCh $*-ká?$ ($*-l$) • PW $*-k^j a$, $*-k^j á-l^h$
- (319) PM $*[ji]má$ ‘to sleep’ > Mk $[i]ma?$ • Ni $[ji]má?$ • PCh $*[?i]má?$ • PW $*[?i]má$
- (320) PM $*-ó$ ($*-l$) ‘penis’ > Ni $-o?$ (-k) • PCh $*-ó?$ ($*-l$) • PW $*-t-ó$ ($*-l^h$)
- (321) PM $*-wó$ ($*-ts$) ‘worm’ > Ni $-βo?$ (-s) • PCh $*-wó?$ ($*-s$) • PW $*-wó$ ($*-s$)
- (322) PM $*-w(t)s’é$ ($*-l$) ‘belly’ > Ni $-βts’e$ (-k) • PCh $*-ts’é?$ ($*-l$) • PW $*-ts’é$ ($*-l^h$)
- (323) PM $*-xa$, $*-xá-l$ ‘price’ > Ni $-fa?$ (-k) • PW $*-ha$, $-há-l^h$
- (324) PM $*-?i$ ($*-l$) ‘liquid, juice’ > Mk 3 $t-i?$ (-l) • Ni $-?i?$ (-k) • PCh $*-?i?$ ($*-l$) • PW $*-t-’i$ ($*-l^h$)

7.1.1.10 Consonant clusters

Nivaçle is fairly conservative with regard to the consonant clusters of Proto-Mataguayan. Very few PM clusters have apparently become illicit in Nivaçle.

The sound change $*(?)nj > n$ is instantiated by two examples.

- (325) PM $*-nji^?x$ ‘smell’ > Mk $-nji^?x$ • Ni $-ni^?f$ • PCh $*-níh$ • PW $*-ni\chi$
- (326) PM $*?njánxte?$ ‘tapeti rabbit, cavy’ > Mk $nijaxti?$ • Ni $nânxate$ • PCh $*?náhâte?$ • PW $*xnáte$

The sound changes $*tts > ts$ and $*qk > k$ are found in one example each; the simplification /tts/ > /ts/ does operate in Nivaçle as a synchronically active process, as in *βa-tseβte* ‘one’s tooth’, from *βat-* and *-tseβte* (Seelwische 2016: 294).

(327) PM $*(-)háqke?$ ‘well’ > Mk *haqqi?* ‘river’ • Ni *-xáke* ‘dry well’ • PCh $*-hááke?$ ‘artificial well’

(328) PM $*lâttsiki-juʔk$ ‘willow’ > Mk *lattsiki-juʔk* • Ni *klâttsiki-juk*

The sound change $*wh > x$ is known from only one root, presumably to the overall rarity of the cluster $*wh$ in the Proto-Mataguayan lexicon.

(329) PM $*-wháʔja?$ ‘spouse’ > Mk *-wheʔje?* • Ni *-xaʔja* • PCh $*-hwáʔja?$

(330) PM $*[t]whaʔjá-ʔj$ ‘to marry’ > Mk *[te]wheʔje-j* • Ni *[t]xaʔja-ʔj* • PCh $*[tʔ]hwaʔjé<jʔ>$ • PW $*[t]wháje<j>$

In one example, the cluster $*χw \sim *hw$ yielded Ni *xíβ*.

(331) PM $*X_{23}wéʔlah$, $*X_{23}wéʔla-ts$ ‘moon’ > Ni *xíβeʔla* (-s) • PCh $*wéʔlah$, $*wéʔla-s$ • PW $*xwéʔlah$

The cluster *kφ* is licit word-medially, as in *ji-kφij* ‘my shoe’, but not word-initially, where PM $*kφ$ yielded Ni *kx*.

(332) PM $*kφá(t)sʔi(?)$ ‘Molina’s hog-nosed skunk’ > Ni *kxatsʔi* • PCh $*kʔh-wátsʔi?$

Some clusters, including at least two triconsonantal clusters, underwent the insertion of an *a*. Known examples involve the clusters $*nxt$, $*stw$, and $*tl$, which yielded *nxat*, *staβ*, and *takl̃*.

(333) PM $*ʔnjánxte?$ ‘tapeti rabbit, cavy’ > Mk *nijaxti?* • Ni *nánxate* • PCh $*ʔnáháte?$ • PW $*xnáte$

(334) PM $*stwúʔn$, $*stwún-its$ ‘king vulture’ > Ni *staβuʔn*, *staβun-is* • PCh $*ʔʔstúuʔn$, $*ʔʔstúun-is$ • PW $*ʔistíwin$

(335) PM $*tlúʔk$ ‘blind’ > Ni *takl̃uʔk* • PCh $*tʔlúk$ • PW $*tilúk^w$

Note that *a*-epenthesis is a synchronically active strategy for triconsonantal clusters in the language. The epenthesis of Ni *a* is seen in the third-person possessive and the second-person active prefixes. Both surface as a syllabic *ɫ* before simplex onsets (336) or as a regular *ɫ* before vowels (337), but as *ɫa*- before consonant clusters (338) (Gutiérrez 2015b: 59, 62, 230–231).

- (336) a. ʔ-t'óx
 3SG-aunt
 'his/her aunt'
 b. ʔ-klíʔf
 3SG-word
 'his/her word'
 c. ʔ-péʔja
 2SG-listen
 'you listen'
- (337) a. ʔ-áse
 3SG-daughter
 'his/her daughter'
 b. ʔ-ám
 2SG-come
 'you come'
- (338) a. ʔa-ktéʔtʃ
 3SG-grandfather
 'his/her grandfather'
 b. ʔa-φxúx
 3SG-toe
 'his/her toe'
 c. ʔa-ktʃáʔ
 2SG-paddle
 'you paddle'

Finally, there are further changes involving *x* and *f* in the environment #_C in some Nivaçle dialects. These will be discussed in greater detail in §7.2.5.

7.1.2 Vowels

Nivaçle is quite conservative with regard to the vowels of Proto-Mataguayan, with the only major innovation being the unconditional merger of **a* and **ä* as Ni *a* (see §3.3 for examples of the sound change PM **ä* > Ni *a*). Before labials, PM **ä* is sometimes reflected as Ni *a*, though the inverse development is also found; as discussed in §7.2.1.3 below, these apparently irregular correspondences may have in fact originated after the dialectal diversification of Nivaçle as a result of dialectal borrowing.

- (339) PM **n-ám* ‘to arrive’ > Mk *n-am* • Ni *n-am* • PCh **n-ám* • PW **<n>ám*
- (340) PM **-áp* ‘to cry’ > Mk *-ap* • Ni *-ap* • PCh **[j]áp*
- (341) PM **-ápil* ‘to return thither’ > Mk *[w]apil* • Ni *[β]apek* • PCh **[j]ápil* • PW **[j]ápilh*
- (342) PM **[j]áp’ä(°)†* ~ **[j]áf’ä(°)†* ‘to burn’ > Ni *[j]ap’a†* • PCh **[j]áp’e†* • PW **[j]áp’e†*
- (343) PM **-φapá-ke?* ‘shoulder blade’ > Ni *-φâpâ-ke* • PCh **-hwopó-ke?*
- (344) PM **xnáwâ?p* ‘spring’ > Mk *xinawa?p* • Ni *fnaβâp* ~ *fnâβâp* • PCh **náwop* • PW **xnáwop*

Another minor innovation involving vowels is that the sequence PM **éwV* is reflected as *oβV* in Nivaçle.

- (345) PM **néwo(°)k* ‘wild manioc’ > Ni *noβok* • PCh (?) **n°wák* • PW **néwok^w*
- (346) PM **téwo(°)k* ~ **téwâ(°)k* ‘river’ > Ni *toβok* ~ *toβâk* • PCh **téwok* ~ **téwâk* • PW **téwok^w*

7.1.3 Word-level prosody

The stress system of Nivaçle inherits some of the properties reconstructed for Proto-Mataguayan in Chapter 4. A synchronic analysis of the Nivaçle stress system is offered by Gutiérrez (2015b), who attributes the superficial patterns to systematic regularities of three types. Specifically, she argues that tautosyllabic sequences of the type *V?* behave as heavy and attract stress; that the language has a number of edge-alignment constraints whereby prosodic foot domains align with the left edge or with the right edge, depending on the morphological category; and that syllables of the structure /CVC/ constitute degenerate feet. Let us examine the former two regularities in their relation with Proto-Mataguayan.

7.1.3.1 Trochaic stress pattern as a remnant from Proto-Mataguayan

The first generalization – that tautosyllabic sequences of the type *V?* are heavy in Nivaçle – is meant to account for the fact that although most disyllabic underived words receive final stress in the language (and are thus iambic), some receive initial stress (and are thus trochaic), and there is a strong correlation between the presence of a /ʔ/ in the initial syllable and the trochaic stress pattern. The following examples are from Gutiérrez (2015b: 162–163, 168).

- (347) a. *sât'á* 'cactus fruit'
 b. *?itáx* 'fire'
 c. *k'akxó* 'armadillo'
 d. *nuksítʃ* 'manioc'
 e. *ʃinβóʔ* 'honey'
 f. *k'utxá'n* 'thorn'
 g. *kú'kten* 'thunder'
 h. *táʔtás* 'pot'
 i. *jóʔnis* 'fox'
 j. *βéʔta* 'one'

There are, however, several exceptions to this generalization, which are not explicitly discussed by Gutiérrez (2015b). In a handful of disyllabic roots, stress falls on the initial syllable despite the absence of /ʔ/, at least for some speakers.⁴ The following examples are from Gutiérrez (2015b: 38, 267) and Campbell et al. (2020: 36).

- (348) a. *?óʔo* 'dove'
 b. *ʔ-áse* 'her/his daughter'
 c. *núʔu* 'dog'
 d. *=k'ója* 'for, before'

The cognates of the former three stems in Chorote all have initial stress, reflecting the trochaic accent pattern of Proto-Mataguyan: PCh **?óhwoʔ* 'dove', **hl-áseʔ* 'her/his daughter', **núʔuh* 'dog'. The fourth one also occurs with initial stress when prefixed: PCh **-kójaʔ* 'for'. It is, therefore, tempting to assume the trochaic accent of PM is preserved in disyllables, but only in those ending in a vowel in Nivaçle. By contrast, PM trochaic disyllables ending in a consonant appear to have innovated final stress in Nivaçle: to the best of our knowledge, no variants with initial stress have been attested in any published source for nouns such as *ʃnaβáʔp* 'spring', *ʃináx* 'crab', *nájif* 'path', *noβók* 'wild manioc', *βosók* 'butterfly', *?itáx* 'fire' (Gutiérrez 2015b: 40, 163, 271, 273, 304, 319), even though their

⁴Stell (1987: 150, 189, 205) documents forms such as *?oʔo* 'dove', *nuʔú* 'dog', *=k'ója* (no gloss), suggesting that the position of the stress may be different for some speakers. Analía Gutiérrez (personal communication, 2021) confirms that there is interspeaker variation in this regard. It is straightforward to assume that the less common trochaic pattern is conservative, and that the iambic pattern attested in Stell (1987) is an innovation.

Proto-Mataguayan etyma are reconstructed as trochaic: PM **xnáwãp* ‘spring’, **φínãχ* ‘crab’, **nájix* ‘path’, **néwok* ‘wild manioc’, **wósãq* ~ **wósãk* ‘butterfly’, **ʔitãχ* ‘fire’. Moreover, even some vowel-final roots are systematically documented with a final stress; examples include *t-ãβá* ‘its flower’, *tʃetʃé* ‘parrot’, *ʔuklʔá* ‘turtle dove’ (Gutiérrez 2015b: 38, 68, 110). We surmise that these nouns instantiate the type of variation discussed in footnote 4 and predict that they have trochaic variants at least in some dialects, something that can be tested in the future with native speakers of Nivaçle.

As for the correlation between the presence of a postvocalic /ʔ/ and stress in Nivaçle, one is left wondering whether that could not be an epiphenomenal consequence of deglottalization in unstressed syllables, discussed in §7.1.1.8 above. Indeed, if the language allows for disyllabic stems that are lexically specified as trochaic, one could expect some of them to contain a /ʔ/ after the vowel of the initial syllable (as in /kúʔkten/, or perhaps /kúʔkʔlten/ ‘thunder’). This glottal stop makes it to the surface, because it occurs in an accented syllable. On the other hand, disyllabic stem with final accent can also contain an underlying /ʔ/ after the vowel of the initial syllable, but the fact that it is located in the unaccented position is expected to prevent it from surfacing: compare Ni *φúʔx* ‘it smells’ and *φux-k’é* ‘it stinks’ (Seelwische 2016: 138). This possibility will need to be kept in mind in future descriptions of the stress system of Nivaçle.

7.1.3.2 Edge-aligned foot construction

We have seen in §7.1.3.1 that the disyllabic roots with initial stress (trochees) of Proto-Mataguayan show a tendency of shifting the stress rightwards in Nivaçle, and in some dialects the erstwhile distinction may have been entirely erased in favor of the iambic pattern. This subsection presents additional evidence for an innovative pattern in Nivaçle, where iambic feet are constructed from right to left.

Gutiérrez (2015b) argues that different morphological categories are associated with different edge-alignment constraints in Nivaçle. More specifically, prosodic foot domains align with the right edge in words composed of bare roots (ROOT domain), or in words where roots are augmented by derivational suffixes (MORPHOLOGICAL STEM 1), in which case iambic feet are built from the right edge of word. The following examples are from Gutiérrez (2015b: 165, 173); note that non-final syllables of the structure CVC constitute a degenerate foot, and the grave accent indicates secondary stress.

- (349) a. *tfa(xaní)* ‘wild boar’
 b. *?ã(jintfé)* ‘pepper’
 c. *(pù?)(xaná)* ‘three’
 d. *(?ãk)(xeklã)* ‘woman’
 e. *(sisé)* ‘cane’
 f. *si(se-tfát)* ‘cane field’ ‘cane + ‘plant group’
 g. *(samúk)* ‘feces’
 h. *(sàm)(ku-xíj)* ‘latrine’ ‘feces + ‘concave container’

In words that contain prefixes and lack inflectional suffixes (MORPHOLOGICAL STEM 2), the iambic foot is instead aligned with the left edge of the word. The following data are from Gutiérrez (2015b: 184, 186, 188–191, 195, 199–200). Note the coda deglottalization in the unparsed syllables in (350b), (350f), (350g), (350i), (350k), (350m), (350o), (350q), (350s), (350u), (350w). In (350n), by contrast, deglottalization affects the coda of the weak syllable in an iambic foot.

- (350) a. *(finbó?)* ‘honey’
 b. *(ji-fín)bo* ‘my honey’
 c. *(?itãx)* ‘fire’
 d. *(?a-β-í)tãx* ‘your fire’
 e. *(ji-βlí?)* ‘my rib’
 f. *(katsí)-βlí* ‘our rib’
 g. *(batá)-βlí* ‘one’s rib’
 h. *(k’utxá’n)* ‘thorn’
 i. *(ji-k’út)xan* ‘my needle’
 j. *(xú’k)* ‘firewood’
 k. *(ji-ká)-xuk* ‘my firewood’
 l. *(ji-tsó’s)* ‘my milk (inalienable)’
 m. *(ji-ká)-tsos* ‘my milk (alienable)’
 n. *(ji-txó’k)* ‘my uncle’
 o. *(ji-ká)-’txok* ‘my brother-in-law’

- p. *(ji-kt'é'tf)* 'my grandfather'
- q. *(ji-ká)-kt'etf* 'my father-in-law'
- r. *(ji-kt'é?)* 'my grandmother'
- s. *(ji-ká)-kt'e* 'my mother-in-law'
- t. *(βât)-(faté'tf)* 'one's head'
- u. *(ʔa-fá)tetf* 'your head'
- v. *(kàs)-(tini'f)* 'our necklace'
- w. *(ʔa-tí)nif* 'your necklace'

Finally, the largest domain for stress assignment described in Gutiérrez (2015b) – the MORPHOLOGICAL WORD – is the one that encompasses inflectional suffixes, such as the nominal plural suffixes. The presence of such suffixes overrides the Morphological Stem 2 domain, defined by prefixes, and iambic feet are constructed, one again, from the right left edge of the word. The following examples are from Gutiérrez (2015b: 202–206).

- (351)
- a. *(ʔ-âk-âs)* 'her/his foods'
 - b. *ji-(tat-ís)* 'my thorns'
 - c. *ji-(klif-áj)* 'my words'
 - d. *ji-t'i(kl-éj)* 'my tears'
 - e. *(ji-kò'ts)(xat-ís)* 'my lands'
 - f. *(ji-φè)(tats-íj)* 'my roots/medicines'
 - g. *(ji-pâʔ)(kât-áj)* 'my hands'

The right-aligned footing pattern, described by Gutiérrez (2015b: 7) for the Root, Morphological Stem 1, and Morphological Word domains in Nivaçle, constitutes an innovation with regard to the left-aligned accent pattern of Proto-Mataguayan, as reconstructed in Chapter 4. For these morphological categories, the position of the Nivaçle stress and of the PM accent coincide in a handful of cases (see §4.2.1, §4.2.2, §4.3.1) but differ in others. The innovative pattern erases the distinctions that may have been present in PM, and is thus of no use for comparative reconstruction, even if its similarity with the right-aligned stress of Maká (§6.3) and Wichí (§9.1.3.2) is of note.

Conversely, the left-aligned stress in the Morphological Stem 2 domain must reflect directly the left-aligned accent of Proto-Mataguayan. Recall that this pattern obtains in prefixed words, and almost all known Nivaçle prefixes go back

to PM prefixes that lack an underlying accent.⁵ When such prefixes are followed by an unaccented monosyllabic root in Proto-Mataguayan, the word remains unaccented, as discussed in Chapter 4.2.1, and its Nivaçle reflex regularly receives default (final) stress: *ji-[?]kli[?]f* ‘my word’, *n-átf* ‘(that) s/he go away’, *ʔa-fáʔ* ‘your salary’.

- (352) a. **ji-* + **-[?]li[?]x* → **ji-[?]li[?]x* ‘my word’
 b. **n-* + **-āk* → **n-āk* ‘(that) s/he go away’
 c. **ʔa-* + **-xa* → **ʔa-xa* ‘your payment’

When unaccented prefixes are followed by an accented monosyllabic consonant-initial root or by a trochaic or unaccented disyllabic consonant-initial root, the accent regularly falls on the peninitial syllable in Proto-Mataguayan, as discussed in Chapter 4. In this case, Nivaçle retains the peninitial stress of Proto-Mataguayan: *ji-k[?]lés* ‘my children’, *ʔ-[?]phájxo* ‘its charcoal’, *ji-[?]phétas* ‘my root/medicine’.

- (353) a. **ji-* + **-léts* → **ji-léts* ‘my children’
 b. **ʔ-* + **phájxo[?]* → **ʔ-[?]phájxo[?]* ‘its charcoal’
 c. **ji-* + **phétä[?]ts* → **ji-[?]phétä[?]ts* ‘my root’

There are two combinations, however, where in our reconstruction prefixed words bear accent in a position other than non-peninitial in Proto-Mataguayan. One such combination arises when an unaccented prefix takes a non-moraic allomorph before a vowel-initial trochaic root (354a), where the accent is initial. The second combination is when an unaccented prefix is followed by an underlyingly iambic consonant-initial root, as in (354b) or (354c), in which case the accent is postpeninitial.

⁵We are aware of few exceptions. First of all, the PM etymon of the 1+2.POSS prefix *kats(i)* = probably was not a canonical prefix at all. Its Chorote cognate has a different function (1+2.P/S_p) and is invisible for the stress assignment rule, suggesting that PM **qats* was an enclitic or even an independent word, possibly a pronoun rather than a person index (otherwise it would be difficult to account for the difference between the functions of its reflexes in Nivaçle and Chorote). The second exception is the alienizing prefix *ka-*. It goes back to PM **qá-*, an accented morpheme that must have been phonologically independent in Proto-Mataguayan, just like its Chorote reflex. Be it as it may, in Nivaçle *ka-* is always preceded by a possessive person prefix; consequently, it is always stressed (just like its PM etymon), thus posing no difficulties for our analysis. Finally, the reflexive/reciprocal *(-)[?]βa^(?)t(-)* (as well as the indefinite possessor prefix *βat(-)*, which could be related to the reflexive/reciprocal prefix) is another possible candidate. Its Iyo’awujwa’ and Manjui cognates are not prefixes but rather roots of independent prosodical words; in absence of a Wichí cognate it is impossible to determine whether its PM etymon was accented (**-wá[?]t*) or not (**-wä[?]t*).

- (354) a. *ʔ- + *-áseʔ → *ʔ-áseʔ ‘her/his daughter’
 b. *ji- + *-kitáʔ → *ji-kitáʔ ‘my elder sister’
 c. *ʔa- + *-qaláʔ → *ʔa-qaláʔ ‘your leg’

In each case, there is evidence that Nivaçle might in fact retain the Proto-Mataguayan accent pattern, thus violating the left-aligned pattern posited by Gutiérrez (2015b) for the Prosodic Word 2 domain. The Nivaçle reflex of PM *ʔ-áseʔ ‘her/his daughter’ is attested as ʔ-áse in Gutiérrez (2015b: 38), with initial stress. As for the postpeninitial accent pattern, although we have been unable to find the reflexes of forms such as *ji-kitáʔ ‘my elder sister’ or *ʔa-qaláʔ ‘your leg’ in sources that indicate stress explicitly,⁶ note that the final ʔ fails to deglottalize in Nivaçle: *ji-tʃitaʔ* ‘my elder sister’, *ʔa-kakláʔ* ‘your leg’ (Seelwische 2016: 56, 103). This indicates that the Nivaçle forms in question might retain the postpeninitial accent reconstructed for PM, a pattern unaccounted for by Gutiérrez (2015b): *ji-(tʃitaʔ)*, *ʔa-(kakláʔ)*. This point needs to be clarified in future fieldwork with native speakers of Nivaçle.

7.2 Innovations in Nivaçle dialects

Gutiérrez (2015b: 7) reports at least three regional varieties of Nivaçle as defined by linguistic criteria:

1. Chishamnee Lhavos (also known as the Arribeño, or Upriver dialect), spoken along the Pilcomayo River, from Fortín Magariños (to the west from Misión Esteros) in the southeast up to the Pedro P. Peña area (Paraguay) and Salta (Argentina) in the northwest (Stell 1987: 21–22);
2. Shichaam Lhavos (also known as the Abajeño, or Downriver dialect), spoken from Fortín Magariños up to the Missions of San José de Esteros and San Leonardo de Escalante/Fischat (Paraguay) (Stell 1987: 21–22);
3. Yita’ Lhavos (or the Bush dialect), whose zone lays to the north from the Chishamnee Lhavos area, entirely in Paraguay, reaching Mayor Infante Rivarola and approaching Mariscal Estigarribia, with speakers in the Mission of Santa Teresita.

⁶By saying this, we exclude Stell (1987), who attests final stress not only in the reflexes of these nouns, but also in multiple words where Gutiérrez (2015b) has documented non-final stress. That way, the variety of Nivaçle described by Stell (1987) is not informative for the purposes of reconstructing PM prosody.

Little is known about the defining characteristics of the dialects spoken by the Jotoi Lhavos (who live in the communities around Campo Loa, Paraguay) and the Tavashai Lhavos (who live north of San José de Esteros, and southeast of Filadelfia, close to the Mennonites colonies, also in Paraguay).

In what follows, we outline the phonological evolution of the Nivaçle dialects on which linguistic data are available.

7.2.1 Reflexes of **â* in Nivaçle dialects

The opposition between the back and non-back low vowels (**â* and **a*) is generally preserved in Nivaçle, except for certain (sub)dialects, where *â* may merge with *a* or *o* in specific environments.

7.2.1.1 Merger of *a* and *â*

The merger of *â* and *a* is found in the speech of many speakers of Nivaçle. Most notably, Ni *â* and *a* are reported to have entirely merged as *a* in the variety spoken by the Yita' Lhavos (Gutiérrez 2015b: 37). According to one of Gutiérrez's (2015b) consultants, who works as a primary school teacher in Misión Santa Teresita (where the Yita' Lhavos variety is spoken), "the vowel [a] is only produced when reading texts at school or during mass, otherwise the [a] has replaced the [a] in everyday life". The examples in (355), taken from Gutiérrez (2015b: 37–38), illustrate.

- (355) a. ShL *x-ák* ~ YL *x-ák* 'I go'
 b. ShL *tâjé'x* ~ YL *tajé'x* 'shaman'
 c. ShL *?a-tán* ~ YL *?a-tán* 'light!'
 d. ShL *xa-klá'p* ~ YL *xa-klá'p* 'I have (sb.) on my lap'
 e. ShL *?iná't* ~ YL *?iná't* 'water'
 f. ShL *toβák* ~ YL *toβák* 'river'
 g. ShL *t-áse* ~ YL *t-ási* 'his/her daughter'

In addition to the Yita' Lhavos variety, Stell (1987: 534–535) reports that Shichaam Lhavos *â* corresponds to *a* in the speech of her Chishamnee Lhavos consultant from Las Vertientes (however, the same speaker is reported to produce *â* in some words where the Shichaam Lhavos tend to have *o*, on which see §7.2.1.2). Campbell et al. (2020: 8) also state that the merger is complete or "very advanced" for many (though not all) Chishamnee Lhavos. Stell (1987: 504, 507) gives the following examples.

- (356) a. ShL *t'aklâ'k* ~ ChL *t'akla'k* 'weed'
 b. ShL *-kĭlân* ~ ChL *-kĭlan* 'to kill'
 c. ShL *xokânâxâ* ~ ChL *xokanaxa* 'collared peccary'

That way, Proto-Nivaçle **â*, inherited from Proto-Mataguayan, is best preserved in Shichaam Lhavos and for some speakers of Chishamnee Lhavos in the default environment.

7.2.1.2 Merger of *â* and *o*

Above we have seen that Shichaam Lhavos is generally conservative with regard to Proto-Nivaçle **â*. In some words, however, it appears to be reflected as *o* in Shichaam Lhavos. In the same words, it fails to front to *a* in the Chishamnee Lhavos variety described by Stell (1987), as it usually does, on which see (356) above. Consider the following examples from (Stell 1987: 498, 504, 514, 517, 521), where *â* in the Chishamnee Lhavos dialect corresponds to *o* in Shichaam Lhavos.

- (357) a. ShL *bat-kâxoj-xajaf* ~ ChL *bat-kâxâj-xajaf* 'one's game, prey'
 b. ShL *xa-tfetxoj* ~ ChL *xa-tfetxâj* 'I staked'
 c. ShL *k-'oxe'tf* ~ ChL *k-'âxe'tf* 'I skinned'
 d. ShL *xa-tijox* ~ ChL *xa-tijâx* 'I shoot'
 e. ShL *tfi-jo?xi* ~ ChL *tfi-jâ?xi* 'it is drunk'
 f. ShL *?inot* ~ ChL *?inât* 'water'
 g. ShL *noke* ~ ChL *nâke* 'this'
 h. ShL *?ope'f* ~ ChL *?âpe'f* 'therefore'

Sources other than Stell (1987) – including Gutiérrez (2015b), who has worked with speakers of Shichaam Lhavos – usually attest *â* in the cognates of these words (or *a*, for dialects that have lost **â* altogether), suggesting that the reflex *o* is restricted to specific subdialects of Shichaam Lhavos. We have been unable to identify the exact conditioning environment, but note that the target vowel is adjacent to *x* in most examples, including (357a)–(357e). The same environment appears to have prevented *â* from fronting to *a* in the subdialect of Chishamnee Lhavos described by Stell (1987).

7.2.1.3 Variation between *a* and *â* before labials

The Proto-Mataguayan distinction between **â* and **a* appears to have blurred before labial consonants in Nivaçle, with most varieties showing *a* as the reflex of both Proto-Mataguayan vowels. Consider the following examples of Proto-Mataguayan roots that are unequivocally reconstructed with PM **â*, yet most Nivaçle varieties, including the conservative Shichaam Lhavos dialect, show *a* in its place according to our sources.⁷

- (358) PM **n-â*m ‘to arrive’ > Mk *n-am* • Ni *n-am* • PCh **n-â*m • PW **<n>âm*
- (359) PM **-â*p ‘to cry’ > Mk *-ap* • Ni *-ap* • PCh **[j]â*p
- (360) PM **-â*pil ‘to return thither’ > Mk *[w]apil* • Ni *[β]apek* • PCh **[j]â*pil • PW **[j]â*pil^h

One exception is the Central Paraguayan subdialect of Chishamnee Lhavos, spoken by one of the co-authors of Campbell et al. (2020). In that variety, **â* is the only low vowel found before labial consonants: *n-â*m ‘s/he arrives’, *x-â*p= ‘in I cry’, *β-â*pek ‘s/he returns thither’.

Yet in other cases, PM **â* before labials is reflected as Ni *â*, sometimes in variation with *a*. The nature of variation in such cases is in all likelihood dialectal, though this is not explicitly stated in our sources. In the following examples, the Nivaçle reflexes are cited as they most commonly appear in our sources, but note that the verb in (361) is attested not only as *-ap’at*, but also as *-âp’at*, as in the first-person reflexive *xa-βank-âp’at* (Seelwische 2016: 47), or even as *-â?p’at*, as in *t-â?p’at-xan* ‘s/he burns châguar’ (Campbell et al. 2020: 111). Conversely, the noun in (368) is usually attested with a back vowel (Gutiérrez 2015b: 254, 277), but some sources give a form with a non-back vowel (*?aφte’k*), which is probably characteristic of the Pilcomayeño subdialect of Chishamnee Lhavos (Campbell et al. 2020, Stell 1987: 125).

- (361) PM **[j]â*p’â(°)t ~ **[j]â*φ’â(°)t ‘to burn’ > Ni *[j]ap’at* • PCh **[j]â*p’eł • PW **[j]â*p’eł
- (362) PM **lâ*p’ih ~ **lâ*φ’ih ‘snail’ > Ni *klâp’i* • PCh **lâ*p’ih
- (363) PM **[ji]tâ*’m ‘to defecate’ > Mk *<i>tâ*’m • Ni *[ji]tâ*’m • PCh **[ʔi]hlâ*’m • PW **[t]’a>tâ*’m

⁷An anonymous reviewer notes that the vowel in question can be pronounced as [a] in these examples, suggesting that extra documentation with special attention to the dialectal variation is needed in order to fully describe the reflexes of low vowels before labials in Nivaçle.

- (364) PM *-támte? (*-ts) ‘daughter-in-law’ > Ni -támte<?e> (-s) • PCh *-támte?(*-s)
- (365) PM *-táwäʔx, *-táwxä-ts ‘(abdominal) cavity’ > Mk -taweʔx, -tawxe-ts • Ni -táβaʔf, -táβxa-s • PCh *-tóweh • PW *-tóweχ
- (366) PM *xnáwäʔp ‘spring’ > Mk xinawaʔp • Ni fnaβâp ~ fnâβâp • PCh *nâwop • PW *xnâwop
- (367) PM *[j]âfti(ʔ)ɬ ‘to spin’ > Mk [j]afti(ʔ)ɬ • Ni [j]âftiɬ
- (368) PM *ʔâfteʔl ‘orphan’ > Mk aftiʔl • Ni ʔâfteʔk

As for Proto-Mataguayan *a and *ä before labials, they are mostly reflected as Ni a, sometimes in variation with â. In (372), â is the only option attested. In (374), the reflex fnaβâp is attested by Stell (1987: 111, 395) and Gutiérrez (2015b: 40, 64), whereas the reflex fnâβâp is attested by Stell (1987: 180), Fabre (2014: 118, 304), Gutiérrez (2015b: 53), Seelwische (2016: 244), and Campbell et al. (2020: 127). One can conclude that the former likely represents the Shichaam Lhavos variety, whereas the latter is typical of the Chishamnee Lhavos variety. In Yitaʔ Lhavos, the reflex is expectedly fnaβap (Gutiérrez 2015b: 50), because that variety lacks the phoneme /â/ altogether. By contrast, the Central Paraguayan subdialect of Chishamnee Lhavos is reported to display an â in such cases, as in ɬ-âβâ ‘its flower’ (Campbell et al. 2020: 73).

- (369) PM *-âf, *-fâ-ts ‘wing’ > Mk 3 ɬ-ef, ɬe-fe-ts • Ni -af, -<a>fa-s • PCh *-hw<és> • PW *-ɬ-ex^w
- (370) PM *-âwâ(?) ‘flower’ > Ni -aβâ • PCh 3 *hl-âwo? • PW *-ɬ-âwo
- (371) PM *n-apʔu ~ *n-aφʔu (~ *-â- ~ *-ú) ‘to lick’ > Ni n-apʔu • PCh *[ʔi]<n>âpʔu? • PW *<n>apʔu ~ *<n>âpʔu ~ *<n>apʔuh
- (372) PM *-fapâ-keʔ ‘shoulder blade’ > Ni -fâpâ-ke • PCh *-hwopó-keʔ
- (373) PM *lama(h) ~ *läma(h) (*-m) ‘to be smooth’ > Mk le:me, leme-m • Ni k̄lama<m>
- (374) PM *xnáwäʔp ‘spring’ > Mk xinawaʔp • Ni fnaβâp ~ fnâβâp • PCh *nâwop • PW *xnâwop
- (375) PM *(ʔ)wawo(h) (*-l) ‘maned wolf’ > Mk wowo (-l) • Ni βaβo (-k)
- (376) PM *ʔámʔâh, *ʔámʔâ-ts ‘rat’ > Ni ʔamʔâ (-s) • PCh *ʔámʔah ~ *ʔámʔâh, *ʔámʔa-s ~ *ʔámʔâ-s • PW *ʔáma
- (377) PM *ʔápʔa(ʔ)χ ~ *ʔáφʔa(ʔ)χ ‘jararaca’ > Ni ʔapʔax • PCh *ʔápʔah

- (378) PM *ʔáwu(C)tseχ ‘peccary’ > Ni ʔaβuktsex ~ ʔaβoktsex • PCh *ʔáwusah •
PW *ʔáwutsaχ

In conclusion, Nivaçle preserves the distinction between *â and *a in a very unsystematic way before labial consonants, with the exceptions being too numerous to be ignored. We tentatively attribute them to interdialectal borrowing, but the issue clearly needs further research.

7.2.2 Variation between *ji* and *i*

Stell (1987: 534–535) states that the sequence *ji* may optionally lose the approximant *j* in the speech of most of her Shichaam Lhavos consultants (except for one consultant from San Leonardo/Fischat, who consistently has *ji*), whereas her consultant from the Chishamnee Lhavos group has only the *j*-less variant in his speech. More recently, Campbell et al. (2020: 49) reported that the sequence *ji* – not only word-initially, but in any position – may optionally lose the approximant *j* in the Chishamnee Lhavos variety, especially in its riverine subdialect (spoken along the Pilcomayo River) and in non-careful speech.

Stell (1987: 173, 498, 514, 521, 531) gives the following examples.

- (379) a. ShL *ji-* ~ ChL *i-* ‘1.POSS’
b. ShL *jita?* ~ ChL *ita?* ‘forest’
c. ShL *jitfatxuʔ* ~ ChL *itfatxuʔ* ‘four’
d. ShL *jiteʔx* ~ ChL *iteʔx* ‘grass’
e. ShL *ʔojintfe-j* ~ ChL *ʔointfe-j* ‘peppers’

No such variation concerns instances of *ʔi* that lack an underlying /j/, as in *ʔitâx* ‘fire’, which never appears as **jitâx*.

7.2.3 Variation between *Cʔβu* and *Cʔu*

Campbell et al. (2020: 50) report that the sequence *Cʔβu* loses the approximant *β* (represented as *w* in the cited work) in the subdialect of Chishamnee Lhavos spoken in Central Paraguay:

- (380) a. ChL-Pi *sʔβuklax* ~ ChL-Py *sʔuklax* ‘anteater’
b. ChL-Pi *k-ʔa-sʔβun* ~ ChL-Py *k-ʔa-sʔun* ‘I love you, I want you’

7.2.4 Delateralization before Ni ?

In all Nivačle dialects, an entirely productive rule delateralizes \widehat{kl} to k in codas as a result of a sound change (see §7.1.1.4). Diachronically, the sound change in question also applied within morphemes, and consequently sequences of the type $*\widehat{kl}C$ are not found anywhere in the lexicon of Nivačle with one exception: namely, the cluster Ni $\widehat{kl}?$ is licit in most dialects morpheme-internally, as in ʔuklʔa ‘dove’ (from PM $*\text{ʔúlʔáh}$). At morpheme boundaries, \widehat{kl} is delateralized to k in all dialects even before a $?$, with the resulting cluster $k+?$ expectedly yielding k' .

In the variety spoken by the Yit'a Lhavos, however, the sequence Ni $\widehat{kl}?$ is entirely illicit. Erstwhile $*\widehat{kl}?$ changes to k' both within morphemes and at morpheme boundaries in that dialect (Gutiérrez 2015b: 7, 227–228), resulting in the sound correspondence between k' in Yit'a Lhavos and $\widehat{kl}?$ in other varieties, including Shichaam Lhavos and Chishamnee Lhavos. This is shown in (381) (Gutiérrez 2015b: 227–228).

- (381) a. YL $\text{ʔuk}'á$ ~ ShL ʔuklʔá ‘dove’
 b. YL $\text{ji-}fák'u$ ~ ShL $\text{ji-}fáklʔu$ ‘my brother-in-law’
 c. YL $\text{ji-}fák'a$ ~ ShL $\text{ji-}fáklʔa$ ‘my nephew’

7.2.5 Variation before Ni sC- and fC-

Stell (1987: 534–535) reports that the word-initial cluster sC- is found in the speech of her consultant from Las Vertientes (speaker of Chishamnee Lhavos) and – in variation with fC- – of one consultant from the Mission of San Leonardo/Fischat (speaker of Shichaam Lhavos), whereas her other Shichaam Lhavos-speaking consultants from San Leonardo/Fischat and San José de Esteros use exclusively fC-. This correspondence is found in items such as $\widehat{sklâkxaj}$ ~ $\widehat{fklâkxaj}$ ‘wild cat’ and $\text{st}(a)-$ ~ $\text{ft}(a)-$ ‘1+2.A/S_A’. The form $\widehat{sklâkxaj}$ is attested as a variant alongside $\widehat{fklâkxaj}$ in Gutiérrez (2015b: 231), who worked with speakers of Shichaam Lhavos and Yita' Lhavos. Only the forms $\widehat{fklâkxaj}$ and $\text{ft}(a)-$ are attested in Campbell et al. (2020), who deal with the Chishamnee Lhavos dialect.

From a diachronic point of view, the pattern discussed in this subsection is rather surprising: comparative data show that the variant with s is more conservative in words such as $\widehat{sklâkxaj}$ ~ $\widehat{fklâkxaj}$ ‘wild cat’, but the variant with f is apparently more conservative in $\text{st}(a)-$ ~ $\text{ft}(a)-$ ‘1+2.A/S_A’. It is therefore unclear whether the sound correspondence in question results from only one post-Proto-Nivačle sound change or whether various sound changes with different directionalities have occurred in different Nivačle dialects.

7.2.6 Shichaam Lhavos *i* and Chishamnee Lhavos *e*

Stell (1987: 124–125, 162, 498, 504, 514, 521, 526) documents the correspondence between *i* in the Shichaam Lhavos dialect and *e* in the Chishamnee Lhavos dialect.

- (382) a. ShL *t-’âxi-tfe* ~ ChL *t-’âxe-tfe* ‘its scale’
 b. ShL *-xpik* ~ ChL *-xpek* ‘shadow’
 c. ShL *t-pik* ~ ChL *t-pek* ‘s/he returns hither’
 d. ShL *nikxo’k* ~ ChL *nekxo’k* ‘boy’
 e. ShL *kifam* ~ ChL *ketfam* ‘upwards’
 f. ShL *nijâtsitf* ~ ChL *niâtsetf* ‘maize chicha’

The same correspondence is found in the plural suffix *-is* in some nouns; Gutiérrez (2015b: 276–277) considers the vowel in question epenthetic.

- (383) a. ShL *jinkâp-ís* ~ ChL *inkâp-és* ‘years’
 b. ShL *kotsxat-ís* ~ ChL *kotsxat-és* ‘lands’

In this case, too, it is difficult to establish whether the sound correspondence in question results from only one post-Proto-Nivaçle sound change or whether various sound changes with different directionalities operated in different Nivaçle dialects. Note that in (382b) it is the variant with *e* that seems to be archaic, judging by the cognates in other Mataguyan languages, whereas in (382c) and in the plural suffix *-is* it is the variant with *i* that must represent a retention. The issue requires further investigation.

7.2.7 Sporadic vowel raising in Yita’ Lhavos

Gutiérrez (2015b: 38) reports that in some specific words Yita’ Lhavos shows a high vowel where other varieties have a mid one:

- (384) a. YL *tʃʰitʃʰí* ~ ShL *tʃʰetʃʰé* ‘parrot’
 b. YL *kekʰlejtʃʰí* ~ ShL *kekʰlejtʃʰé* ‘bean’
 c. YL *nikxaké* ~ ShL *nèkxâké* ‘girl’
 d. YL *fijâ* ~ ShL *fejâ* ‘bat’ (example from Seelwische 2016)
 e. YL *kutsxáʰt* ~ ShL *kotsxáʰt* ‘earth’

7.2.8 Realization of /ij/

In their description of the Shichamnee Lhavos variety of Nivačle, Campbell et al. (2020: 73) state that the rhyme *ij* is pronounced as [i:], as in *nijxâj* ‘ropes, strings’, *?antʃʰanjij* ‘listen to me!’ (phonetically [ni:xaj], [ʔantʃʰanji:]). This may account for the fact that some of our sources, such as Seelwische (2016), often represent the sequence in question simply as *i*. In this book we use only the representation *ij*.

7.2.9 Intervocalic ejectives

Gutiérrez (2015b: 54) explicitly states that, at least in her data, “the glottal stop can occur before all consonants except before another glottal stop or an ejective”. However, in Campbell et al.’s (2020) description one often finds sequences of the type *?C* corresponding to ejective consonants in other sources:

- (385) a. ChL *n-aʔpʰu* ~ other *n-apʰu* ‘s/he licks’
 b. ChL *?aʔpʰax* ~ other *?apʰax* ‘jararaca’
 c. ChL *naʔpʰuk* ~ other *napʰuk* ‘salty’
 d. ChL *-pʰikʰo* ~ other *-pʰikʰo* ‘heel’

We believe that [ʔ] is hardly phonological in such cases: its presence more likely reflects a difference in the relative timing of the articulatory gestures involved in the production of intervocalic ejective, whereby the obstruction of the airflow in the glottis initiates before the supraglottal constriction reaches its maximum. We know of no clear minimal pairs involving the purported *?C* sequences and ejective stops.

7.2.10 Progressive vowel assimilation

Campbell et al. (2020: 10, 317) note that the Pilcomayeño subdialect of Chishamnee Lhavos lacks the progressive translaryngeal vowel assimilation process, which is pervasive in the Central Paraguayan subdialect of Chishamnee Lhavos and has also been attested by Gutiérrez (2016c), who worked with speakers of Chishaam Lhavos and Yita’ Lhavos. For example, the imperfective suffix *-ʔin* is reported to surface as *-ʔen*, *-ʔan*, *-ʔân* when preceded, respectively, by an *e*, *a*, or *â* in some varieties of the language (Gutiérrez 2016c: 339–340), whereas the Pilcomayeño subdialect of Chishamnee Lhavos knows no such process.⁸

⁸Note that in addition to the progressive translaryngeal vowel assimilation, which operates across an underlying glottal stop, Nivačle also has a process of regressive vowel assimilation, which operates across an epenthetic glottal stop (Gutiérrez 2016c: 340–341). The latter process apparently occurs in all dialects, including Chishamnee Lhavos (Campbell et al. 2020, Stell 1987: 167–168).

(386) ChL-Pi *xaʔj-atʔo-ʔin* ~ other *xaʔj-atʔo-ʔon* ‘I yawned’

(387) ChL-Pi *ji-jaʔpʔo-ʔin* ~ other *ji-jaʔpʔo-ʔon* ‘s/he/it drowned’

The Pilcomayeño subdialect of Chishamnee Lhavos also lacks the allomorphy pattern whereby the antipassive suffix *-xan* surfaces as *-xun* after the vowel *u* (Campbell et al. 2020: 10).

(388) a. ChL-Pi *xaj-uʔklu-xan* ~ other *xaj-uʔklu-xun* ‘I roast’

b. ChL-Pi *xaj-aklapxu-xan* ~ other *xaj-aklapxu-xun* ‘I pile, I stack’

Stell (1987) documents only the allomorphs with *u* in such cases, whereas Fabre (2014: 48) claims the assimilation is optional.

8 Chorote

This chapter deals with the historical phonology of Chorote [chor1274] (§1.1.3). §8.1 discusses the development of PM consonants, vowels, and prosody from the PM stage to Proto-Chorote. §8.2 is concerned with the diversification of the Chorote varieties.

For the Iyojwa'aja' variety, spoken in Argentina, there is a detailed vocabulary by Gerzenstein (1979), a dictionary by Drayson (2009), grammatical descriptions by Gerzenstein (1978) and Carol (2014b), and a detailed description of its phonology by Carol (2014a). For the Iyo'awujwa' variety, also spoken in Argentina, there is a grammatical description and a vocabulary by Gerzenstein (1983). Scarpa (2010) documents multiple terms for plant species in Iyojwa'aja' and Iyo'awujwa'. For Manjui, spoken in Paraguay, there is a dictionary by Carol (2018), which includes a morphological sketch, and Carol's (forthcoming) paper on phonological and phonetic issues (recall that our use of the term "Manjui" excludes variety of San Eugenio/San Agustín, see §1.1.3). In addition to these sources, we rely on Carol's field notes on all three varieties of Chorote, particularly on Iyojwa'aja' and Manjui.

The consonantal inventory we assume for Proto-Chorote is given in Table 8.1. Note that **hw* and **hl* are analyzed as complex segments due to their distributional properties,¹ whereas other similar combinations (**ht*, **hj*, **hm*, etc.) are treated as clusters. In coda position, however, **/hw/* and **/hl/* are realized as **ʌ* and **ɫ*, respectively, with significant gestural overlap. The vocalic inventory we assume for Proto-Chorote includes six vowel phonemes, **/i e a ɔ u/*; the seventh vowel, reconstructed as **ɶ*, was an intrusive (nonphonemic) vowel.

Individual Chorote lects, however, show drastically different inventories. Their consonant systems lack a velar–uvular distinction; palatalized velars are opposed to plain velars instead. Many other palatalized consonants have arisen by means

¹Treating them as complex segments rather than clusters allows to explain the existence of forms such as Ijw *?inhlés* 'one's children' or *?inhwés* 'one's wing' without postulating complex onsets or codas. The two-phase realization is especially noticeable after a stressed vowel, where an intrusive "echo vowel" often appears, as already noticed by Gerzenstein (1983: 24–26); see also Carol (2014a: 80) for acoustic data. For example, Ijw *táhle* 'comes from (a distant place)' usually surfaces as [tahǎle?].

Table 8.1: Proto-Chorote consonants

| | labial | dental | alveolar | velar | uvular | glottal |
|---------------------------|--------|--------|----------|-------|--------|---------|
| plain stops | *p | *t | | *k | *q | *ʔ |
| ejective stops | *p' | *t' | *ts' | *k' | *q' | |
| fricatives | | | *s | | | *h |
| plain approximants | *w | *l | | *j | | |
| glottalized approximants | *ʔw | *ʔl | | *ʔj | | |
| preaspirated approximants | *hw | *hl | | | | |
| plain nasals | *m | *n | | | | |
| glottalized nasals | *ʔm | *ʔn | | | | |

of palatalization processes, but their synchronic phonological status is disputed. The contemporary Chorote lects no longer retain **a* as a speech sound (IPA *[a]), though Carol (2014a) does posit an underlying distinction between /a/ and /ã/ for Iyojwa'aja' based on their behavior. In all contemporary lects, /i u e o/ have lowered allophones in certain contexts, and in some cases the lowered allophones of /i u/ are phonetically very close to the default (non-lowered) allophones of /e o/.

8.1 From Proto-Mataguyan to Proto-Chorote

This section deals with the development of PM consonants (§8.1.1), vowels (§8.1.2), and prosody (§8.1.3) from the Proto-Mataguyan stage to Proto-Chorote.

8.1.1 Consonants

The historical development of the PM consonants in Chorote includes the following sound changes: the sound change PM **ts* > PCh **s* (§8.1.1.1), the merger of PM **k* and PM **q* in the coda position (§8.1.1.2), the unpacking of PM **ɸ* and **ɬ* to PCh **hw* and **hl*, respectively (§8.1.1.3), the merger of the fricatives PM **x*, **χ*, and **h* > PCh **h* or **hw* in certain environments (§8.1.1.4), the change of word-initial PM **ji-* to PCh **ʔi-* (§8.1.1.5), the insertion of **[ʔ]* word-finally after vowels and **j* (§8.1.1.6), the sporadic glottalization of sonorants in some words (§8.1.1.7), the glottal dissimilation (§8.1.1.8), the deglottalization of glottalized non-sonorant codas (§8.1.1.9), the fortition of glottalized fricatives (§8.1.1.10), and the evolution of syllabic consonants (§8.1.1.11). The evolution of Proto-Mataguyan consonant

clusters is described in §8.1.1.12 (for clusters whose second element is a guttural fricative) and §8.1.1.13 (for all other clusters).

8.1.1.1 PM *ts

Proto-Mataguyan *ts yielded PCh *s in both onsets and codas, thus merging with PM *s (though see §8.2.2.11 for possible remnants of *ts in the Iyo'awujwa' variety of Chorote). In the contemporary varieties of Chorote, the pronunciation of its default reflex varies between [s], [xs], and [hs] whenever preceded by a vowel, as detailed in §8.2.2.11.

- (1) PM **φátsu*([?])*χ*, **φátshu*-*ts* 'centipede' > Ni *φatsux*, *φatsxu*-*s* • PCh **(h)wásuh*, **(h)wásu*-*s* • PW **x^wátsux^w*
- (2) PM **-φáľits* 'daughter-in-law, sister-in-law' > Mk *-felits* • Ni *-φakľis*<*?a*> 'sister-in-law' • PCh **-hwéľis* 'daughter-in-law'
- (3) PM **(-)*φétä[?]*ts* 'root' > Mk *fitets* • Ni *-φeta*[?]*s* • PCh **-hwétus* • PW **(-)*x^wétes
- (4) PM **φtsána*([?])*χ* 'suncho (*Baccharis sp.*)' > Ni *φtsanax* • PCh **sána*h • PW **x^witsána*χ
- (5) PM **φts-u*[?]*k* 'palm (*Copernicia alba*)' > Mk *fits-uk* • Ni *φts-u*[?]*k* • PCh **hwis*<*úk*> • PW **x^wits*<*uk^w*>
- (6) PM **jjjá*[?]*ts* 'dew' > Mk *ije*[?]*ts* • Ni *jija*[?]*s* • PCh **?ijés*-*tah* • PW **?ijás*
- (7) PM **-kéjâts* (m.), **-ké(j)tsâ*-*ts* (pl.) 'grandchild' > PCh **-kéjâs*, **-kétsâs* • PW **-k'éjâs*, **-k'étsâs*
- (8) PM **k*([?])*utsá*([?])*X*₁₂ ~ **k*([?])*utsé*([?])*χ* 'cháguar (*Bromelia hieronymi*)' > PCh **k'usáh* • PW **k'utsá*χ
- (9) PM **(-)*k'[?]*útsa*[?]*χ*, **(-)*k'[?]*útsha*-*ts* 'old' > Mk *k'útsa*[?]*χ*, *k'útshe*-*ts* • Ni *k'útsa*[?]*x*, *k'útsxa*-*s* • PCh **-k'úсах*, **-k'úsa*-*s* • PW **-k'^jútsa*χ
- (10) PM **lătsen*-*u*[?]*k* 'chañar plant' > Mk <*xu*>*letsin*-*u*[?]*k* • PCh **léseni*-*k* • PW **lătsen*-*uk^w*
- (11) PM **-lés* 'offspring' > Mk *-ľits* • Ni *-kľes* • PCh **-lés* • PW **-lés*
- (12) PM **(-)*lútse[?]*x*, **(-)*lútsxe-*ts* 'bow' > Ni *klútsef* / *-kľútse[?]f*, *(-)*kľútsfe-*s* • PCh **(-)*lúseh (**-es*) • PW **(-)*lútseχ, **(-)*lútse-*s*
- (13) PM **níltsa*([?])*X*₁₂, **níltsX*₁₃*a*-*ts* 'white-lipped peccary' > PCh **<?ih>níľsah*, **<?ih>níľsa*-*s* • PW **nítsa*χ, **nítsha*-*s*
- (14) PM **pătse*([?])*χ* 'fast, quick' > Ni *pătsex* • PCh **(-)*pásah

- (15) PM **påttséχ* ‘jabiru’ > Ni *påtsex* • PCh **påtśáh* • PW **påtśáχ*
- (16) PM **qatiʔts*, **qatits-él* ‘star’ > Ni *katiʔs* • PCh **qatés*, **qates-él* • PW **qates*, **qatés-el^h*
- (17) PM **-qátsile(?)* (*-*j^h*) ‘guts’ > PCh **-qátsile-j^h* • PW **-qátsle-j^h*
- (18) PM **qatsíwo(?)* ‘limpkin’ > PCh **qasíwo<?oh>* • PW **qatsíwo*
- (19) PM **-tátse?* (*-*j^h*) ‘eyelash’ > Mk *-tetsi?* (-*j*) • Ni *-tátse* (-*j*) • PCh **-tátse?* (*-*j^h*)
- (20) PM **-tä(?)ts*, **-täts-él* ‘trunk, base’ > PCh **-tés* (*-*el*) • PW **-tes*, **-tés-el^h*
- (21) PM **-täts-uʔk*, **-täts-ku-j^h* ‘trunk’ > Ni *-tats-uk*, *-tas-ku-j* • PCh **(-)*tés-uk, **-tés-ku-j^h*
- (22) PM **(-)*tútse(?)*χ* ‘smoke’ > PCh **(-)*túśah • PW **(-)*tútsaχ
- (23) PM **(-)*its ‘PL’ > Mk *-(i)ts* • Ni *-(i)s* • PCh **(-)*is • PW **(-)*is
- (24) PM **ts-* ‘that (within the speaker’s sight)’ > Mk *ts-* • PCh **sé?* • PW **=tsoh* ‘that (moving away)’
- (25) PM **tsaqaq* ~ **-ä-* ‘plant sp.’ > Mk *tseqaq* • Ni *tsakak*
- (26) PM **sáháq* (*-*its*) ‘chajá bird’ > Mk *tsahaq* (-*its*) • PCh **sáhák*, **sáháq-es* ~ **sáháq-is* • PW **tsáháq*
- (27) PM **[ji]tsá(?)j* ‘to spill’ > PCh **[?i]śáj?* • PW **[?i]tsáj*
- (28) PM **sänúʔk* ‘duraznillo trees’ > Ni *tsanuʔk* • PCh **sinúk* • PW **tsinúk^w*
- (29) PM **tsémłá(?)k* ~ **tsámłá(?)k* ‘silk floss tree’ > PCh **sémhlák* • PW **tsémłák^w*
- (30) PM **tséχ-APPL* ‘full (river)’ > Ni *tsex-APPL* • PCh **-śáh* • PW **tsáχ-APPL*
- (31) PM **tsóφa(?)* ‘fruit of a shrub (*Maytenus vitis-idaea*)’ > PCh **sóhwa?* • PW **tsóx^wa(?)*
- (32) PM **tsóna(?)* ‘red brocket’ > PCh **tsóna?* • PW **tsóʔnah*
- (33) PM **ʔwátshan* ~ **ʔwátśhan* ‘to be healthy, alive’ > Ni *βatsxan* • PCh **ʔwásaʔn* • PW **ʔwátshan*
- (34) PM **-ʔaqhuʔts* ~ **-ʔaqhúʔts* ‘knee’ > Mk *-aqhuʔts* • Ni *-(ʔa)kxuʔs* • PCh **-ʔaqús*
- (35) PM **ʔáwu(C)tseχ* ‘peccary’ > Ni *ʔaβuktsex* ~ *ʔaβoktsex* • PCh **ʔáwusah* • PW **ʔáwutsaχ*
- (36) PM **(ʔa)X₁₃útsa(?)χ*, **(ʔa)X₁₃útsha-ts* ‘crested caracara’ > Ni *xutsax*, *xutsxa-s* • PCh **(ʔa)húśah*, **(ʔa)húśa-s* • PW **ʔahútsaχ*, **ʔahútsha-s*

- (37) PM *ʔál(V)tse(ʔ)χ, *ʔál(V)tse-ts ‘cháguar (*Deinacanthon urbanianum*)’ > Ni ʔáktsex, ʔáktse-s • PCh *ʔál³sah, *ʔál³se-s • PW *ʔáletsax
- (38) PM *ʔátits ~ *-í- ~ *-e- ~ *-é- ‘wild pepper’ > Mk *atits* • PCh *ʔátés

The Iyojwa’aja’ reflexes suggest that the deaffrication may have failed to apply between a *j and a vowel. We propose that Proto-Chorote */s/ was articulated as *[ts] in that environment, and reconstruct PCh *[n]ájtsi? ‘to feel disgust’ and *-kéjtsás ‘grandchildren’ (underlying representations: */n-ʔájsi/, */-kéjtsás/).

8.1.1.2 PM *k, *q, and their glottalized counterparts

This subsection deals with the development of Proto-Mataguayan *k(ʔ) and *q(ʔ) in Proto-Chorote.

The Proto-Chorote reflexes of these sounds in the onset position are represented in this book as *k(ʔ) and *q(ʔ), respectively. It is in fact likely that PCh *k(ʔ) was articulated as a prevelar stop (IPA [k̟(ʔ)]) in onsets, since contemporary Chorote lects show palatalized reflexes in a development shared with Wichí: [kʲ] (§8.2.2.2) for the plain stop and [kʲʔ] or [ʔʲ] (§8.2.2.5) for the ejective stop. In addition, [k̟(ʔ)] is still a usual realization of the reflex of PCh *k(ʔ) in Manjui before [e], and before in all Chorote lects before [i]. We do not reconstruct PCh *k and *kʔ as *kʲ and *kʲʔ, respectively, because these phonemes were subject to the so-called first palatalization, which applied independently across the differentiated Chorote lects (§8.2.1.1). Similarly, we propose that PCh *q(ʔ) was articulated as uvular, even though its reflexes in the daughter lects are sometimes articulated as velar in the contemporary varieties of Chorote (therefore, the velar/uvular contrast is no longer existent in contemporary Chorote). Reconstructing a uvular value for PCh *q(ʔ) helps to account for its failure to undergo the first palatalization in the contemporary Chorote varieties (§8.2.1.1) and for the lowering effect it causes in the preceding vowels (§8.2.3.6). Also note that in early loanwords from Spanish /k/ is rendered as modern kʲ (from PCh *k) rather than k (from PCh *q), as in Ijw *wák’a* from Spanish *vaca* [βaka] ‘cow’ (Carol 2014a: 101, fn. 37).

In a number of cases, however, Proto-Mataguayan *k is reflected as PCh *q.² This is likely regular when PM *k occurs as part of the cluster *kh word-medially, as in (39), possibly due to the fact that *k may still have been syllabified as a coda when the merger of *k and *q took place (see below in this subsection; later on,

²We do not include the pair PCh *taqám ~ PW *tákʲam ‘pacu fish’, where in addition to the anomalous correspondence PCh *q ~ PW *kʲ one finds a mismatch between the placement of the accent. These words are likely related via borrowing and are not true cognates.

clusters of the shape **Ch* typically underwent metathesis; see §8.1.1.12).³ In other examples, Proto-Mataguayan **k* is backed to **q* before the vowel PCh **u*.

- (39) PM *-*kha* ‘demonstrative base’ > Mk -*khe* • PCh *-*hqa?*
 (40) PM *[*t*]kúʔj-*APPL* ‘to vomit’ > Mk [*t*]<’e>*kuj(i)-kij* • Ni [*t*(’a)]kuʔj-*APPL* • PCh *[*t*ʔ]qúj-’*n* • PW *[*t*]kʔúj-*APPL*
 (41) PM *-*kúj-hat* $\tilde{}$ **-kúj-et* ‘vomit’ > Ni -*kuj<et>* • PCh *-*qú<h>j<at>* • PW *-*kʔúj<hat>*
 (42) PM *[*ji*]kún-*han* ‘to feed’ > Mk [*j*]<e>*kun-hen* • Ni [*ji*]kun-*xan* • PCh *[*ʔi*]qúhn-*an* • PW *[*ʔi*]kʔún-*han*

This exceptional development is not shared with Wichí, and the backing of PM **k* before **u* cannot be viewed as regular, because numerous counterexamples are known. Compare especially (43) with its causative (42).

- (43) PM *-*kun* ~ *-*kún* ‘to eat (intr.)’ > Ni <*tsak*>*kun* • PCh *[*t*ʔ]<’já>*kun*

There is also a very rare correspondence between Ijw *kʲ* and I’w/Mj *k*, which is attributed to PCh **kw* in this book. This cluster goes back to PM **kϕ* and will be discussed in §8.1.1.13.

In the coda position, PM **k* and **q* merged in Proto-Chorote. It is unclear whether the resulting sound was articulated as velar or uvular; we symbolize it as PCh **k*.

- (44) PM *-*âq*, *-*qá-ts* ‘food’ > Mk -*aq*, -*qa-ts* • Ni -*âk*, -*kâ-s* • PCh *-*âk*, -*qá-s* • PW *-*âq*, *-*qá<s>*
 (45) PM *-*ajeʔk* ~ *-*ajéʔk* ‘honey comb’ > Ni -*ajeʔf* • PCh *-*q-âjek*
 (46) PM 1 **h-âk*, 2 **ʔ-âk*, 3 *[*j*]ik; CISL **n-âk* ‘to go away’ > Mk 1 *h-ak*, 2 *ʔ-ak*, 3 *ik*; CISL *n-ek* • Ni 1 *x-âk*, 2 *ʔ-âk*, 3 [*j*]itf; CISL *n-atf* • PCh 1 ʔâk, 2 **hl-ék* • PW 2 **ʔ-eq*, 3 *[*j*]iq; CISL **n-eq*
 (47) PM *(-)ϕeʔek ~ *-*éʔe* ~ *-*eʔé* ‘mortar’ > Mk (-)fiʔik • Ni -*ϕeʔetf* • PCh *(-)hwVhlek • PW **xʷéʔeq*

³We do not rule out the possibility that the cluster **kh* should also be reconstructed in the Proto-Mataguayan terms for ‘wild cat’ (PM **sláqhaj* in our current proposal) and ‘fog’ (PM **xnáqhaj* in our current proposal), which could allow including the Maká homonyms *xunkhaj* ‘wild cat’ and *xunkhaj* ‘fog’ into the respective etymologies (in our current proposal, both are tentatively considered loans from Nivaê). In both cases, one finds PCh **hq* and PW **qh*, which could hypothetically be considered regular reflexes of PM **kh* and not only PM **qh*.

- (48) PM *[j]ɸiʔk ~ *[j]ɸiʔk ‘to hide’ > Ni [j]ɸiʔf • PCh *[ʔi]hwik
- (49) PM *ɸts-uʔk ‘palm (*Copernicia alba*)’ > Mk *fits-uk* • Ni *ɸts-uʔk* • PCh **hwis<úk>* • PW **xʷits<ukʷ>*
- (50) PM *-tiʔk ~ *-tiʔk, *-ti-jʰ ‘thread’ > Ni -tiʔf, -ti-j<is> • PCh *-hlik, *-hli-jʰ
- (51) PM *-tuʔk, *-tú-jʰ ‘yica bag, load’ > Mk -tuʔk, -tu-j • Ni -tuʔk • PCh *-hlúk, *-hlúj-... • PW *-túkʷ, *-tú-j<is>
- (52) PM *-máʔk, *-mhá-jʰ ‘powder, flour’ > Ni -máʔk, -mxá-j • PCh *-mák • PW *-mókʷ, *-mhó-jʰ
- (53) PM *-muk, *-mhu-jʰ ‘feces’ > Mk -<i>muk, -<i>mhu-j • Ni (-)<sa>muk, (-)<sa>mxu-j • PCh *-<ʔá>muk • PW *-<ʔá>mukʷ, *-<ʔá>mhu-jʰ
- (54) PM *ʔmók (*-its) ‘zorzal bird (*Turdus sp.*)’ > Mk *mok (-its)* • Ni *mok (-is)* • PCh *ʔmók (*-is)
- (55) PM *néwo(ʔ)k ‘wild manioc’ > Ni *noɸok* • PCh (?) *nʷák • PW *néwokʷ
- (56) PM *(-)niják, *(-)nijhá-jʰ ‘rope, cord’ > Mk (-)nijak, (-)nijha-j • Ni -niják, -nijá-j • PCh *niják, *nijhá-jʰ • PW *nijákʷ, *nijhá-jʰ
- (57) PM *-pʰoʔk ~ *-ɸʰoʔk ‘fence’ > Ni -pʰoʔk • PCh *-pʰók • PW *-pʰokʷ
- (58) PM *-qáwa(ʔ)q ‘belt, band’ > PCh *-qáwak • PW *-qáwaq
- (59) PM *tánúk (*-its) ‘feline’ > Mk *tenuk (-its)* • Ni *tanuk (-is)* • PCh *tinúk (*-is)
- (60) PM *téwo(ʔ)k ~ *téwá(ʔ)k ‘river’ > Ni *toɸok ~ toɸák* • PCh *téwok ~ *téwák • PW *téwokʷ
- (61) PM *títe(ʔ)k, *títte-jʰ ‘plate’ > Ni (-)títetf, (-)títte-j • PCh *títek, *títte-jʰ
- (62) PM *tlúʔk ‘blind’ > Ni *taklúʔk* • PCh *tʰlúk • PW *tilúkʷ
- (63) PM *-ʔtxoʔk ~ *-ʔtxóʔk ‘uncle’ > Mk -txoʔk • Ni -ʔtxoʔk • PCh *-<i>tók • PW *-<wi>thokʷ
- (64) PM *sáháq (*-its) ‘chajá bird’ > Mk *tsahaq (-its)* • PCh *sáhák, *sáháq-es ~ *sáháq-is • PW *tsáháq
- (65) PM *tsánúʔk ‘duraznillo trees’ > Ni *tsanuʔk* • PCh *sinúk • PW *tsinúkʷ
- (66) PM *-(j)uk ‘tree (suffix)’ > Mk -(j)uk • Ni -(j)uk • PCh *-(j)uk • PW *-(j)ukʷ
- (67) PM *-wáʔk ‘bad mood’ > Mk -wak • Ni -βáʔk • PCh *-wák • PW *-wákʷ
- (68) PM *wák ‘all’ > Mk *we:k* • Ni -βatf • PCh *-wek • PW *-weq
- (69) PM *-xáteʔk, *-xáthe-jʰ ‘head’ > Ni -fateʔf, -fatxe-s • PCh *-hétek, *-héte-jʰ • PW *-t-éteq, *-t-éthe-jʰ

- (70) PM $*xpáʔk \sim *xpáʔk$ ‘straw’ > Mk $xupa(ʔ)k \sim xupek$ • Ni $xpáʔk$ • PCh $*ʔipák$
- (71) PM $*X_{13}óʔk$ ‘palo santo (*Bulnesia sarmientoi*)’ > Ni $xoʔk$ • PCh $*hók$ • PW $*hók^w$
- (72) PM $*-X_{13}uʔk, *-X_{13}ú-j^h$ ‘firewood’ > Ni $-xuʔk, -xu-j$ • PCh $*(ʔitáh)-huk$ • PW $*-huk^w, *-hú-j<is>$
- (73) PM $*-ʔa(ʔ)q$ ‘rope, cord’ > PCh $*-ʔák$ • PW $*-t-ʔaq$

It is often possible to determine whether PCh $*k$ in the stem-final position goes back to PM $*k$ or $*q$ by adding a vowel-initial suffix: instances of PCh $*k$ that go back to PM $*k$ expectedly resyllabify as PCh $*k$ (which yields k^j in the contemporary Chorote varieties), whereas those instances of PCh $*k$ that go back to PM $*q$ resyllabify as PCh $*q$ (which yields k in the contemporary Chorote varieties). In (74), this is shown for the Iyojwa’aja’ reflexes of PM $*h-ák$ ‘I went away’ and $*t-áq$ ‘her/his food’.

- (74) Iyojwa’aja’
- $ʔá-k$ ‘I went away’ / $ʔá-k^j-eʔ$ ‘then I went away’
 - $hl-ák$ ‘her/his food’ / $hl-ák-e$ ‘with her/his food’

8.1.1.3 PM $*\phi$ and $*t$

Proto-Mataguayan $*\phi$ and $*t$ unpack to PCh $*hw$ and $*hl$, respectively, in onsets, and yield $*m$ and $*t$, respectively, in codas. We consider $*m$ and $*t$ to be positionally conditioned allophones of $*/hw/$, $*/hl/$. The two-phase realization of PCh $*hw$ and $*hl$ is especially noticeable in the daughter languages after a stressed vowel, where an intrusive “echo vowel” often appears, as already noticed by Gerzenstein (1983: 24–26); see also Carol (2014a: 80) for acoustic data. That way, Ijw $táhleʔ$ ‘comes from (a distant place)’ usually surfaces as [‘tahǎleʔ], and Ijw $tóhwe$ ‘is far away from’ as [‘tǒhǒwe].

Some examples illustrating the evolution of PM $*\phi$ follow. The major allophones represented in our notation include $*hw$ (in onsets) and $*m$ (in codas). Gerzenstein (1983: 20–21) describes its pronunciation in onsets as varying between [f^w], [x^w], and [h^w] in Iyojwa’aja’, whereas [x^w] is reported as the predominating allophone in Iyo’awujwa’ and Manjui (in the latter variety, [f] and [x^w] are reported as rare variants). In our data, [hw] (or – less frequently – [xw]) is the default realization of /hw/ in onsets in all Chorote varieties, whereas before a pause /hw/ may surface as [w^m] or [wh] at least in Iyojwa’aja’ (Carol 2014a: 87).

- (75) PM **-äφ*, **-φá-ts* ‘wing’ > Mk 3 *ɫ-ef*, *ɫe-fe-ts* • Ni *-aφ*, *-<a>φa-s* • PCh **-hw<és>* • PW **-ɫ-ex^w*
- (76) PM **-φah*, **-φa-ts* ‘companion’ > Mk *-fe (-ts)* • Ni *-φa (-s)* • PCh **-hwah*, **-hwa-s* • PW **-x^wah*, **-x^wa-s*
- (77) PM **φajXo?*, **φajXó-l* / **-φájXo?* (**-l*) ‘coal’ > Ni *(-)φajxo?* (*-k*) • PCh **hwa(h)jo-* • PW **x^wijho(?)*, **x^wijhó-l^h* / **-x^wijho (*-l^h)*
- (78) PM **-φá-[?]mat* ‘disease’ > Mk *<eq>fe-[?]met* • Ni *-φa-[?]mat* • PCh **-hwá-[?]mat*
- (79) PM **-φapá(?)* ‘shoulder’ > PCh **-hwopó?* • PW **-x^wápo*
- (80) PM **-φapá-ke?* ‘shoulder blade’ > Ni *-φápá-ke* • PCh **-hwopó-ke?*
- (81) PM **φá[?]t* ~ **φá[?]t* ‘fire’ > Mk *fe[?]t* • PCh **hwát*
- (82) PM **φátsu(°)χ*, **φátshu-ts* ‘centipede’ > Ni *φatsux*, *φatsxu-s* • PCh **(h)wásuh*, **(h)wásu-s* • PW **x^wátsux^w*
- (83) PM **[ji]φá[?]x* ‘to cut down’ > Mk *fex-inet-ki?* ‘ax’ • Ni *[ji]φá[?]f* • PCh **[ʔi]hwáh-APPL* • PW **[ʔi]x^wáχ*
- (84) PM **φa[?]áj* ‘algarrobo fruit (*Prosopis alba*)’ > Ni *φa[?]aj* • PCh **hwa[?]áj?* • PW **x^wa[?]áj^h*
- (85) PM **φa[?]áj-u[?]k*, **φa[?]áj-ku-j^h* ‘algarrobo tree (*Prosopis alba*)’ > Ni *φa[?]aj-<j>uk* • PCh **hwa[?]áj-uk*, **hwa[?]áj-ku-j^h* • PW **x^wa[?]áj-uk*, **x^wa[?]á-k[?]u-j^h*
- (86) PM **-φáji[?]x* ‘right’ > Mk *-feji[?]x* ‘left’ • Ni *-φaji[?]f* • PCh **-hwíjah*
- (87) PM **[ji]φál* ‘to tell’ > Mk *n(i)-fel-im* • Ni *n(i)-φak* / *n(i)-φakl̄-* • PCh **[ʔi]hwél* • PW **[ʔi]x^wél^h* / **[ʔi]x^wél-*
- (88) PM **-φáľits* ‘daughter-in-law, sister-in-law’ > Mk *-felits* • Ni *-φakl̄is<?a>* ‘sister-in-law’ • PCh **-hwéľis* ‘daughter-in-law’
- (89) PM **-φáľľu?* (**-ts*) ‘son-in-law, brother-in-law’ > Mk *-felu?* (*-ts*) • Ni *-φakl̄ľu (-s)* ‘brother-in-law’ • PCh **-hwíľu?* [?] *-hwéľu?* (**-s*) ‘son-in-law’
- (90) PM **φá[?]x* ~ **φá[?]x* ‘field’ > Ni *φa[?]f* • PCh **hwéh*
- (91) PM **[ji]φá[?]já[?]* ~ **φá[?]já[?]* ‘to fly’ > Ni *[ji]φá[?]já[?]* • PCh **[ʔi]hwé[?]já[?]* • PW **x^we[?]já[?]*
[?] **w-* [?] **-i-*
- (92) PM **(-)φeɫek* ~ **-éɫe-* ~ **-eɫé-* ‘mortar’ > Mk *(-)fiɫik* • Ni *-φeɫetf* • PCh **(-)hwVhlek* • PW **x^weɫeq*
- (93) PM **(-)φétá[?]ts* ‘root’ > Mk *fitets* • Ni *-φeta[?]s* • PCh **-hwétus* • PW **(-)x^wétes*

- (94) PM **[ji]phiʔj* ~ **[ji]phiʔj* ‘not to be afraid’ > Ni *[ji]phiʔj* • PCh **[ʔi]hwíjʔ* • PW **[ʔi]xʷíj-eh*
- (95) PM **phiʔjāt* ‘cold weather, south wind’ > Ni *phiʔjat* • PCh **hwiʔjét* • PW **xʷiʔjét*
- (96) PM **[ji]phiʔk* ~ **[ji]phiʔk* ‘to hide’ > Ni *[ji]phiʔtf* • PCh **[ʔi]hwíkwik*
- (97) PM **philâ(°)X₁₂* ‘pocote (*Solanum sp.*)’ > PCh **hwilâh* • PW **xʷilâχ*
- (98) PM **-phiʔtan* ‘to dream’ > PCh **[ʔi]hwíhlan* • PW **[t]xʷílan*
- (99) PM **-phiʔä(°)k* ‘dream’ > PCh **-hwíhlek* • PW **-xʷíteq*
- (100) PM **phinä(°)χ* ‘crab’ > Ni *phinax* • PCh **hwíneh*
- (101) PM **-phólXaʔn* ‘ankle’ > PCh **-hwóhlaʔn* • PW **-xʷónhaʔn*
- (102) PM **-phom* ‘to throw, to push’ > PCh **[ʔi]hwóm-ah* • PW **[t]xʷom*
- (103) PM **-phuʔt* ~ **-phúʔt*, **-phúʔ-ts* ‘flatulence’ > Mk *-ftu-ts* • Ni *-phuʔt*, *-phúʔ-ts* • PCh **-hwút*
- (104) PM **-kíphah*, **-kípha-ts* ‘neighbor’ > Mk *-kife (-ts)* • Ni *-tʔipha (-s)* • PCh **-kíhwah*, **-kíhwa-s*
- (105) PM **-kʔálfah* ‘spouse’ > Ni *-tʔakpha* • PCh **-kʔéhwah* • PW **-kʔʔéxʷah*
- (106) PM **silóʔtâphV[?]* ~ **siwóʔtâphe* ‘Caatinga puffbird’ > PCh **silóʔtâhwVʔ* • PW **siwótâxʷe*
- (107) PM **stáphe(?)* ‘Chaco chachalaca’ > PCh **ʔʔstáhweʔ* • PW **ʔistáxʷe*
- (108) PM **[ni]-táphä(°)l-APPL* ‘to know, to be acquainted’ > Ni *[ni]tâphakl̄-APPL* • PCh **[ʔi]tâhwel-APPL* • PW **-táxʷel-APPL* / **-táxʷnh-APPL*
- (109) PM **tiʔ* ~ **tíʔ* ‘to spend’ > Ni *tiʔ* • PCh **[ʔi]tíM*
- (110) PM **tiʔ* ‘to suckle’ > Mk *tuʔf/ -túʔf* • Ni *tiʔ* • PCh **[ʔi]tíM* • PW **tip*
- (111) PM **tsópha(?)* ‘fruit of a shrub (*Maytenus vitis-idaea*)’ > PCh **sóhwaʔ* • PW **tsóxʷa(?)*
- (112) PM **ʔaphu* ~ **ʔaphú* ‘woman’ > Mk *efu* • PCh **ʔahwúʔ*
- (113) PM **[n]âphé(°)ʔ* ~ **[n]âphä(°)ʔ* ‘to be ashamed’ > PCh **[n]âhwéʔ* • PW **[n]âxʷéʔ* ~ **[n]âxʷélʰ*
- (114) PM **ʔóphoʔ (*-ts)* ‘pigeon’ > Mk *ofoʔ(-l)* • Ni *ʔópho (-s)* • PCh **ʔóhwoʔ (*-s)*

The evolution of PM *ʈ is exemplified below. Note that the Chorote sequence /hl/ is represented as ʈ even in onsets by Campbell & Grondona (2007). Campbell & Grondona (2010: 628) further state that [hl], [xl], and [l] are innovative realizations found in the speech of younger Iyo'awujwa' speakers. We surmise that Campbell & Grondona's (2010) attestation of [ʈ] in older speakers' speech reflects the pronunciation of individuals bilingual in Chorote and Wichí or Nivaçle, since in our data [ʈ] occurs only as an allophone of /hl/ in coda position, and [hl] – or even [hVl] after stressed vowels, as stated above – is the default realization of /hl/, attested by Carol in old speakers' speech (more than 60 years old) in all varieties of Chorote. Gerzenstein (1978, 1979, 1983: 26) also documents it as ^xl or xVl (and not as [ʈ]). Before a pause, /hl/ may surface as [l] or [l] in Iyojwa'aja' (Carol 2014a: 87).

- (115) PM *[j]áʈp'ä(°)ʈ ~ *[j]áʈp'ä(°)ʈ 'to burn' > Ni [j]ap'at • PCh *[j]áʈp'et • PW
*[j]áʈp'et
- (116) PM *(-)ʈetek ~ *-éte- ~ *-eté- 'mortar' > Mk (-)ʈitik • Ni -ʈetetf • PCh
*(-)hwVhlek • PW *x'éteq
- (117) PM *-ʈítan 'to dream' > PCh *[ʔi]hwíhlan • PW *[t]x'ítan
- (118) PM *-ʈítä(°)k 'dream' > PCh *-hwíhlek • PW *-x'ítetq
- (119) PM *-jáʈ 'breath' > Ni -jaʈ • PCh *-jáʈ • PW *-jáʈ
- (120) PM *kéʈxa-ju^k, *kéʈxa-jku-j^h 'red quebracho' > Mk keʈe-jku- • Ni
tʈetxa-juk, tʈetxa-ku-j • PCh *kéhla-juk / *kéhla-jku- • PW *k'éʈ-juk^w,
*k'éʈ-k^u-j^h
- (121) PM *[ji]kúʈ 'to answer' > Mk [j]<e>kuʈ • Ni [ji]kuʈ • PCh *[ʔi]kúhl-APPL
• PW *[ni]k'úʈ
- (122) PM *(-)lká(°)ʈ 'nasal mucus, cold' > Mk -leke(°)ʈ • PCh *kéʈ • PW *k'éʈ-taχ,
*k'éʈ-ta-s
- (123) PM *ʈaʈ 'this.F (within one's hands' reach)' > Ni ʈaʈ • PCh *hlaʈa
- (124) PM *(-)ʈaʈ, *(-)ʈá-ts 'louse' > Mk -<ij>ʈeʈ(-ts) • Ni -ʈaʈ(-s) • PCh *-hláʈ(*-s)
• PW *ʈaʈ
- (125) PM *[ji]ʈáʈ^m 'to defecate' > Mk <i>ʈaʈ^m • Ni [ji]ʈáʈ^m • PCh *[ʔi]hláʈ^m •
PW *[t]<'a>ʈáʈ^m
- (126) PM *[ji]ʈán 'to light fire' > Mk [ni]ʈan-APPL • Ni [ji]ʈán • PCh
*[ʔi]hlán-APPL • PW *[ʔi]ʈán-APPL
- (127) PM *(-)ʈé(°)ʈ 'firewood' > Mk ʈit<u?> • PCh *-<ʔa>hlét ~ *-<ʔa>hlét • PW
*-ʈét

- (128) PM *-*tíʔk* ~ *-*tíʔk*, *-*tí-j^h* ‘thread’ > Ni -*tíʔtʃ*, -*tí-j<is>* • PCh *-*hlík*, *-*hlí-j^h*
- (129) PM *-*túʔk*, *-*tú-j^h* ‘yica bag, load’ > Mk -*túʔk*, -*tú-j* • Ni -*túʔk* • PCh *-*hlúk*, *-*hlúj...* • PW *-*túk^w*, *-*tú-j<is>*
- (130) PM **túmʔa* ‘day’ > Ni *túmʔa* • PCh **hlúmaʔ*
- (131) PM **tútsX₂₃a(ʔ)* (*-*jek*) ‘girl’ > Ni *tútsxa* (-*jetʃ*) • PCh **hlúsaʔ* (*-*jek*) • PW **tútsha*
- (132) PM **nátu(h)*, **nátu-ts* ‘day, world’ > Mk *netu* (-*ts*) • Ni *natu* (-*s*) • PCh **náhl<ekis>* ~ **náhl<ekes>* ‘midday’
- (133) PM **péta(ʔ)j*, **pétaj-its* ‘rain’ > Mk *pitěj* (-*its*) • PCh **péhlajʔ* • PW **pétaj^h*, **pétaj-is*
- (134) PM **táʔt* ‘to sprout’ > Mk *taʔt* • Ni *táʔt* • PCh **táʔt* • PW **táʔt*
- (135) PM **titáʔx* ‘to carry on one’s shoulders’ > Mk *titóʔx* / -*titóʔx* • Ni *titáʔx* • PCh **[ʔi]tíhlâh* • PW **titáʔx*
- (136) PM **tiʔt* ‘to spin, to sew’ > Mk *[ji]tit* • Ni *tiʔt* • PCh **[j]<á>tit*
- (137) PM **tsémłá(ʔ)k* ~ **tsámłá(ʔ)k* ‘silk floss tree’ > PCh **sémhlâk* • PW **tsémłák^w*
- (138) PM **[j]úłá(ʔ)χ* ‘to be tired’ > Mk -*ułá(ʔ)χ* ‘breath’ • Ni *[j]ułâx* • PCh **[j]úhlâh*
- (139) PM **ʔwánXâłâχ*, **ʔwánXâłâ-ts* ‘rhea’ > Mk *wałax* • Ni *βânxâłâx*, *βânxâłâ-s* • PCh **ʔwánhlâh*, **ʔwánhlâ-s* • PW **wáʔnłâχ*, **wáʔnłâ-s*
- (140) PM **ʔwłiʔ* ~ **ʔwłiʔ*, **ʔwłi-ts* ‘rib’ > Mk -*ʔwełiʔ* (-*ts*) • Ni -*ʔβłi* / -*βłiʔ* (-*s*) • PCh *-*hlí<s>*
- (141) PM **ʔwVʔt* ~ **ʔwVʔt* ‘to climb’ > Mk *weʔt* • Ni *βâʔt* • PCh **[ʔi]ʔwúł* • PW **[t]ʔwúł* ~ **[t]ʔwúł*
- (142) PM **[t]ʔáʔt* ‘to ask’ > Ni *[t]ʔaʔt* • PCh **[t]ʔáʔt* • PW **[t]ʔáʔt*
- (143) PM **ʔatâ(ʔ)* ‘fat’ > PCh *-*ʔahlâʔ* • PW *-*tʔatâ(ʔ)*
- (144) PM **ʔátu(ʔ)* ‘iguana’ > Ni *ʔátu* (-*s*) • PCh **ʔáhlúʔ* (*-*s*) • PW **ʔátu*
- (145) PM **[n]âłé(ʔ)ł* ~ **[n]âłă(ʔ)ł* ‘to be ashamed’ > PCh **[n]âhwét* • PW **[n]âx^wét* ~ **[n]âx^wél^h*
- (146) PM **ʔúł* ‘to urinate’ > Mk *uł* / -*ʔuł* • Ni *[j]uł* / -*ʔuł* • PCh **[t]ʔúł* • PW **[t]ʔúł*
- (147) PM **ʔúłtu(ʔ)* ‘urine’ > Ni -*ʔułtu* • PCh *-*ʔúhlúʔ* • PW *-*tʔúłtu*

- (148) PM *ʔuwáte(?)χ ~ *C'uwáte(?)χ 'puma' > Ni <xum>p'ubátex • PCh *k'uwáhlah • PW *ʔowátaχ ~ *C'owátaχ

An exception arises when PM *ʔ was syllabified as a nucleus in the protolanguage: in this case, one finds *hʔ (see §8.1.1.11).

8.1.1.4 PM *h, *x and *χ

In most cases, Proto-Mataguayan *x and *χ yielded PCh *h both in onsets and codas, thus merging with PM *h. In the contemporary Chorote varieties, the reflexes of PCh *h are typically articulated as [h] or [x],⁴ except in certain environments where PCh *h is altogether lost (§8.2.2.7–8.2.2.10).

Some examples showing the default reflex of PM *x in Chorote follow.

- (149) PM *[j]ékʰaʔx 'to bite' > Mk [j]ikʰeʔx • PCh *[j]ókʰwah • PW *[j]ókʰaχ
 (150) PM *[j]iʰáʔx 'to cut down' > Mk fex-inet-kiʔ 'ax' • Ni [j]iʰaʔf • PCh *ʔiʰhʰwáh-APPL • PW *ʔiʰxʰáχ
 (151) PM *-ʰájiʔx 'right' > Mk -fejiʔx 'left' • Ni -ʰajiʔf • PCh *-hʰwíjah
 (152) PM *ʰǎʔx ~ *ʰǎʔx 'field' > Ni ʰaʔf • PCh *hʰwéh
 (153) PM *jixá(?) ~ *jixá(?) 'to be true' > Mk ixa • Ni jixáʔ • PCh *ʔihá<wet>
 (154) PM *kowǎʔx / *-kówǎʔx 'hole' > PCh *kowéh / *-kóweh • PW *k'owex / *-k'óweχ
 (155) PM *-k'áxeʔ (*-l) 'arrow' > Mk -qaxiʔ (-l) • Ni -k'áxe • PCh *-k'áheʔ (*-l) • PW *-k'áhe (*-lʰ)
 (156) PM *-k'ínix, *-k'ínixi-ts 'younger brother' > Mk -k'ínix • Ni -tʰinif • PCh *-k'ínih, *-k'ínhi-s • PW *-k'ínix, *-k'ínhi-s
 (157) PM *[j]iʰléʔx 'to wash' > Mk [j]iʰlix-uʔ 'to clean' • Ni [j]iʰkʰléʔf • PCh *ʔiʰléh • PW *ʔiʰléχ
 (158) PM *(-)lútseʔx, *(-)lútsxe-ts 'bow' > Ni kʰlútsef / -kʰlútseʔf, (-)kʰlútsfe-s • PCh *(-)lúseh (*-es) • PW *(-)lútseχ, *(-)lútse-s
 (159) PM *-ʔliʔx, *-ʔlix-ájʰ 'language, word' > Mk -ʔlix<eʔ> • Ni -ʔkʰliʔf, -ʔkʰlif-aj • PCh *-ʔlih, *-ʔlih-ájʰ

⁴Gerzenstein (1983) represents the phoneme in question as /x/ in all three contemporary varieties. Carol (2014a: 79) notes that it patterns with /ʔ/ in being transparent to a specific kind of vowel assimilation, but at the same time it also patterns with supraglottal consonants in being subject to palatalization. In this book, we follow (Carol 2014a) in conventionally representing the segment in question as /h/ in all Chorote varieties as well as in Proto-Chorote.

- (160) PM *-nji[?]x ‘smell’ > Mk -nji[?]x • Ni -ni[?]f • PCh *-ni^h • PW *-ni^χ
- (161) PM *(-)[?]náji[?]x, *(-)[?]nájix-aj^h ‘path’ > Ni náji[?]f, (-)[?]nájif-aj / -[?]náji[?]f • PCh *(-)[?]nájih, *(-)[?]náhj-aj^h • PW *(-)[?]nájix, *(-)[?]nájh-aj^h
- (162) PM *-táwä[?]x, *-táwxä-ts ‘(abdominal) cavity’ > Mk -tawe[?]x, -tawxe-ts • Ni -tâ[?]βa[?]f, -tâ[?]βxa-s • PCh *-tóweh • PW *-tóweχ
- (163) PM *ti[?]lâ[?]x ‘to carry on one’s shoulders’ > Mk ti[?]lô[?]x / -ti[?]lô[?]x • Ni ti[?]lâ[?]x • PCh *[[?]ɾi]tíhlâh • PW *ti[?]lâ^χ
- (164) PM *ti[?]x ‘to dig’ > Mk ti([?])x-APPL / -[?]ti([?])x-APPL • Ni ti[?]f • PCh *[[?]ɾi]tíh-ij[?] • PW *ti^χ
- (165) PM *-wá[?]x, *-w(ä)x-áj^h ‘burrow; anus’ > Ni -βa[?]f, -βaf-aj^h • PCh *-wéh • PW *-wéχ, -wh-áj^h
- (166) PM *[?]wá([?])x, *[?]wáx-aj^h ‘stagnant water’ > PCh *hl-<a>[?]wáh (*-aj^h) • PW *[?]wáχ, *[?]wáh-aj^h
- (167) PM *(X₁₃on-)xa[?]χ, *(X₁₃on-)xáh-aj^h ‘night’ > Mk <na>xa[?]χ • Ni <xon>fa[?]x, <xon>fa[?]x-aj • PCh *<?a>h<n>áh ~ *<?â>h<n>áh • PW *<hon>aχ, *<hon>áh-aj^h
- (168) PM *-xäte[?]k, *-xäthe-j^h ‘head’ > Ni -fate[?]tf, -fatxe-s • PCh *-hétek, *-héhte-j^h • PW *-t-éteq, *-t-éthe-j^h
- (169) PM *xéla[?]-ju[?]k ‘tree sp.’ > Ni *sek[?]lâ[?]-juk* • PCh *hél-ek • PW *hél-ek^w
- (170) PM *-xä[?]n(e[?]) ‘verbal plural (suffix)’ > Ni -fa[?]ne[?]/ -xa[?]ne[?] • PCh *-he[?]n(e[?]) • PW *-he[?]n
- (171) PM *xu([?])p ‘grass’ > Mk *xup<’el>* • PCh *húp • PW *hup
- (172) PM *?áxa[?] ‘stork’ > Mk *exe[?]* ‘maguari stock’ • PCh *?áha[?] ‘jabiru’
- (173) PM *-?âx (*-íts) ‘skin, bark’ > Mk -?ax (-its) • Ni -?âx (-is) • PCh *-?âh, *-?âh-és • PW *-t-’âχ, *-t-’âh-és

The following examples show the default reflex of PM *χ in Chorote.

- (174) PM *[j]áte([?])χ ‘to be fat’ > Ni [j]átex • PCh *[j]átah • PW *[j]átax
- (175) PM *φinä([?])χ ‘crab’ > Ni *φinax* • PCh *hwíneh
- (176) PM *φkéna([?])χ ‘north wind, north’ > Ni *φtfenax* • PCh *hw[?]kénah
- (177) PM *φtsána([?])χ ‘suncho (*Baccharis* sp.)’ > Ni *φtsanax* • PCh *sánah • PW *x^witsánaχ

8.1 From Proto-Mataguayan to Proto-Chorote

- (178) PM $*\{j/?\}is\{á/á/é\}^\chi \sim * \{j/?\}is\{á/á/é\}^\chi$ ‘sand’ > Mk isa^χ • PCh $*?isáh \sim *?isáh$
- (179) PM $*[ji]k'ása^\chi \sim * [ji]k'áse^\chi$ ‘to divide’ > Mk $[j]<a>k'esa^\chi$ • PCh $*[?i]k'ésah$ • PW $*[hi]k^j'ésax$
- (180) PM $*k'ú(t)sta(^\chi)$, $*k'ú(t)sta-ts$ ‘barn owl’ > Ni (?) $k'ustax$, $k'usta-s$ ‘mockingbird’ • PCh $*k'ústah$, $*k'ústa-s$ • PW $*k^j'ústax$
- (181) PM $*(-)k'útsa^\chi$, $*(-)k'útsha-ts$ ‘old’ > Mk $k'utsa^\chi$, $k'utshe-ts$ • Ni $k'utsa^\chi$, $k'utsxa-s$ • PCh $*-k'úsah$, $*-k'úsa-s$ • PW $*-k^j'útsax$
- (182) PM $*pátse(^\chi)$ ‘fast, quick’ > Ni $pátsex$ • PCh $*(-)pásah$
- (183) PM $*páttséx$ ‘jabiru’ > Ni $pátsex$ • PCh $*páttsáh$ • PW $*páttsáx$
- (184) PM $*s^\circ wúla^\chi$, $*s^\circ wúla-ts$ ‘anteater’ > Ni $s^\circ \beta uk\tilde{l}ax$, $s\beta uk\tilde{l}a-s$ • PCh $*s^\circ ?úlah$, $*s^\circ ?úla-s$ • PW $*súlah$
- (185) PM $*-ta\chi$, $*-ta-ts$ ‘pseudo-’ > Mk $-ta\chi$, $-te-ts$ • Ni $-tax$, $-ta-s$ • PCh $*-tah$, $*-ta-s$ • PW $*-ta\chi$, $*-ta-s$
- (186) PM $*tijá^\chi$ ‘to shoot, to throw’ > Mk $tija^\chi$ / $-tija^\chi$ • Ni $tijá^\chi$ • PCh $*[?i]tijáh$ • PW $*tijá\chi$
- (187) PM $*(-)tútse(^\chi)$ ‘smoke’ > PCh $*(-)túсах$ • PW $*(-)tútsax$
- (188) PM $*tséx-APPL$ ‘full (river)’ > Ni $tsex-APPL$ • PCh $*-sáh$ • PW $*tsáx-APPL$
- (189) PM $*[j]útlá(^\chi)$ ‘to be tired’ > Mk $-u\tilde{t}a(^\chi)$ ‘breath’ • Ni $[j]u\tilde{t}ax$ • PCh $*[j]úhláh$
- (190) PM $*?wánXá\tilde{t}á^\chi$, $*?wánXá\tilde{t}á-ts$ ‘rhea’ > Mk $waatax$ • Ni $\beta\tilde{a}nxá\tilde{t}ax$, $\beta\tilde{a}nxá\tilde{t}a-s$ • PCh $*?wánhláh$, $*?wánhlá-s$ • PW $*wá^\circ n\tilde{t}á\chi$, $*wá^\circ n\tilde{t}á-s$
- (191) PM $*(X_{13}on-)xa^\chi$, $*(X_{13}on-)xáh-aj^h$ ‘night’ > Mk $<na>xa^\chi$ • Ni $<xon>fa^\chi$, $<xon>fa^\chi x-aj$ • PCh $*<?a>h<n>áh \sim *<?á>h<n>áh$ • PW $*<hon>a\chi$, $*<hon>áh-aj^h$
- (192) PM $*xunxáta\chi$ ‘tusca fruit’ > Mk $xunxeta\chi$ • Ni $xunfatax$ • PCh $*?ihnátah$ • PW $*xnháta\chi$
- (193) PM $*(?a)X_{13}útsa(^\chi)$, $*(?a)X_{13}útsha-ts$ ‘crested caracara’ > Ni $xutsax$, $xutsxa-s$ • PCh $*(?a)húсах$, $*(?a)húsa-s$ • PW $*?ahútsax$, $*?ahútsha-s$
- (194) PM $*?áp'a(^\chi) \sim *?á\phi'a(^\chi)$ ‘jararaca’ > Ni $?ap'ax$ • PCh $*?áp'ah$
- (195) PM $*?áwu(C)tse\chi$ ‘peccary’ > Ni $?a\betauktsex \sim ?a\betaoktsex$ • PCh $*?áwusah$ • PW $*?áwutsax$
- (196) PM $*?aX_{13}áje(^\chi)$ ‘mistol fruit’ > Ni $?axájex$ • PCh $*?ahájah$ • PW $*?ahájax$

- (197) PM *ʔáʔjtex, *ʔáʔjte-ts ‘to hurt’ > Mk aʔtaχ, aʔti-ts • Ni ʔáʔjtex ~ ʔáʔβtex • PCh *ʔájʔtah-APPL, *-ʔájʔte-s-APPL • PW *ʔájtaχ, *ʔájte-s
- (198) PM *ʔáʔlá-taχ, *ʔáʔlá-ta-s ‘Argentine boa’ > Ni ʔáʔklá-taχ, ʔáʔklá-ta-s • PCh *ʔáʔlá<tah> ~ *ʔáʔlá<tah>, *ʔáʔlá<ta>-s ~ *ʔáʔlá<ta>-s • PW (?) *lá<taχ>
- (199) PM *ʔál(V)tse(ʔ)χ, *ʔál(V)tse-ts ‘cháguar (*Deinacanthon urbanianum*)’ > Ni ʔáktsex, ʔáktse-s • PCh *ʔálʔsah, *ʔálʔse-s • PW *ʔáletsaχ
- (200) PM *ʔánhajeχ ‘wild bean (*Capparis retusa*)’ > Mk anhejaχ • Ni ʔánxajeχ • PCh *ʔóhnajah • PW *ʔánhjaχ
- (201) PM *ʔáskʔála(ʔ)χ ‘widower’ > Ni ʔástfʔaklāx • PCh *ʔáskʔélah
- (202) PM *ʔitá(ʔ)χ, *ʔitá-ts ‘fire’ > Ni ʔitāx, ʔitā-s • PCh *ʔitāh, *ʔitā-s • PW *ʔitāχ, *ʔitā-s
- (203) PM *ʔóna(ʔ)χ ‘my brother’ > Ni ʔonax • PCh *ʔónah
- (204) PM *ʔuwáte(ʔ)χ [?] *Cʔuwáte(ʔ)χ ‘puma’ > Ni <xum>pʔuβaʔex • PCh *kʔuwáhlah • PW *ʔowátaχ [?] *Cʔowátaχ

After rounded vowels, special reflexes are found. In that position, PM *χ changes to PCh *hw if a vowel follows, but to *h in the coda position.

- (205) PM *n-áχ ‘to end up’ > Mk n-aχ • Ni n-áx • PCh *<n>óhw-APPL • PW *<n>ox^w
- (206) PM *ʔátsu(ʔ)χ, *ʔátsu-ts ‘centipede’ > Ni ʔatsux, ʔatsxu-s • PCh *(h)wásuh, *(h)wásu-s • PW *x^wátsux^w
- (207) PM *[ʔa]lólχ, *[ʔa]lól-ts ‘many’ > Mk <o>lo<ts> • Ni <ʔa>klōx • PCh *[ʔa]ʔlōh • PW *<ʔa>lól<s>
- (208) PM *pátóχ ‘to be deep’ > Ni [ʔa]patox • PCh *-pítow<ijʔ> • PW *pitóx^w
- (209) PM *tóχ-APPL, *tó-ts-APPL ‘far’ > Mk -toχ-ij, to-ts-ij • Ni tox-APPL • PCh *tóh(w)-APPL, *tó-ts-APPL • PW *tóx^w-ej^h
- (210) PM *wVʔχ, *wVʔ-ts ‘large, fat’ > Ni -βáʔx • PCh *wúh, *wú-s • PW *wúx^w, *wú-s
- (211) PM *ʔatuʔχ ~ *ʔatúʔχ ‘snake sp.’ > Ni ʔatuʔx • PCh *ʔatúh

In fact, *h and *hw alternate synchronically in such cases in Chorote, as the following examples show.

- (212) Iyojwa'aja' (Drayson 2009: 152, 157)
 a. *wúh* 'it is big' / *wúhw-a'm* 'it is thick'
 b. *tóh-* 'it is high, tall' / *tóhw-e* 'it is far', *tóhw-i?* 'it is deep'
- (213) Manjui (Carol 2018)
 a. *ʔa-tóh-ʔi'm* 'I am far from' / *ʔa-tóhw-ej* 'it is far from', *ʔa-tóhw-a'm* 's/he is far from'
 b. *wúh* 'it is big' / *wúhw-a'm* 'it is thick'

By contrast, PM **x* changes to PCh */hw/ only after **u*, but not after **o*, and in this case it is irrelevant whether the segment in question is syllabified as an onset or a coda (in the latter case, the allophone **ɬ* occurs). That way, PM **x* merges with PM **ϕ* when preceded by an **u*.

- (214) PM **tux* 'to eat (tr.)' > Mk *tux* / *-lux* • Ni *tux* • PCh **[ʔi]túɬ* • PW **tux^w*
 (215) PM **-t'ox* ~ **-t'óx* 'aunt' > Ni *-t'ox* • PCh **-<i>t'óh* • PW **-<wi>t'ox*

There is some evidence that suggests that word-initial guttural fricatives are deleted if the syllable is unstressed, as in the first-person active suffix PM **ha-*, whose Chorote reflex is PM **ʔa-*. If what follows is a rounded vowel followed by **n*, some modifications may take place: the unstressed sequence PM **X₁₃on-* is reflected as PCh **ʔán-* ~ **ʔan-*, as in (217)–(218), and the sequence PM **X₁₃un-* as PCh **ʔin-*, as in (219)–(221). Guttural fricatives are also deleted in word-initial consonant clusters, as discussed in §8.1.1.12.

- (216) PM **X₁₃ajá'wu(?)* ~ **X₁₃ajáwu(?)* (*-l) 'shaman' > PCh **ʔajá'wu?* (*-l) • PW **hajáwu(?)* (*-l^h)
- (217) PM **X₁₃on-xa'χ* 'night' > Ni <*xon*>*fa'x* • PCh **<ʔa>h<n>áh* ~ **<ʔá>h<n>áh* • PW **<hon>aχ*
- (218) PM **X₁₃on-X₂₃a't* (*-its) 'earth' > PCh **<ʔa>h<n>át* ~ **<ʔá>h<n>át* (*-es) • PW **<hon>hat*, **<hon>hát-es*
- (219) PM **xunxátaχ* 'tusca fruit' > Mk *xunxetaχ* • Ni *xunfataχ* • PCh **ʔihnátah* • PW **xnhátah*
- (220) PM **xunxáta-(ju)k* 'tusca tree' > Mk *xunxete-ʔk* • Ni *xunfata-juk* • PCh **ʔihnátá-k* • PW **xnháte-q*
- (221) PM **xunxáta-kat* 'tusca grove' > Mk *xunxete-ket* • Ni *xunfata-tfat* • PCh **ʔihnátá-kat*

Guttural fricatives are also sometimes deleted in intervocalic position in unstressed syllables after vowels such as **a* and **o*. The following vowel is assimilated to the preceding low vowel, and the resulting vowel sequence is exceptionally not resolved by an automatic glottal stop (Chorote does not otherwise allow onsetless syllables).

(222) PM **-á(-j^h)-xi?* (**-l*) ‘mouth’ > Mk *-e<xi?*> (*-l*) • Ni *-a<fi*> (*-k*) • PCh (?) **-á<aj?*> • PW **-t-áj-hi* (**-l^h*)

(223) PM **[ʔi]ʔjáXin* ‘to watch’ > PCh **[ʔi]ʔjáan* • PW **[ʔi]jáhín*

(224) PM **-k’óX₂₃te(?)* (**-j^h*) ‘ear’ > PCh **-k’óote?* (**-j^h*) • PW **-k^j’óte* (**-j^h*)

As a consequence of the intervocalic loss of guttural fricatives, Chorote shows synchronically active alternations between PCh **h* and zero at morpheme boundaries.

- (225) Iyojwa’aja’ (Carol 2014b)
- a. ʔi-m¹á-ji’ n-eʔ /i-má-hajin-ʔe/
3.I.RLS-sleep-CAUS-APPL:punctual
‘s/he makes sleep’
 - b. ʔi-ʔjá-jihn-iʔ /i-ʔjá-hajin-hi(j)/
3.I.RLS-drink-CAUS-APPL:inside
‘s/he gives to drink’
- (226) Iyo’awujwa’ (Gerzenstein 1983: 105)
- a. -má-juʔ /-ma-haju/
-sleep-DESID
‘to feel sleepy’

However, not all suffixes are subject to the **h*-loss: the **h* at the left margin of applicatives and some other suffixes is never deleted in Iyojwa’aja’. This is the case in the verbal plural or ‘downwards’ applicative suffix /-hen/, the ‘inside’ applicative suffix /-hi(j)/, and the locative/dative applicative suffix /-hãm/.⁵ Note that the PM etyma of these suffixes contain a velar fricative, which could be a coincidence or not (by contrast, the suffixes where **h* is lost after a low vowel go back to **h*-initial morphemes of Proto-Mataguayan, such as **=hajuʔ* ‘desiderative’).

⁵In Manjui, unlike Iyojwa’aja’, **h* is lost in such cases, as in ʔi-ʔjé-ejʔ ‘s/he drinks’, but this must be a post-Proto-Chorote development. Like in Iyojwa’aja’, the vowel that follows **h* regularly assimilates to the one that precedes it.

- (227) Iyojwa'aja' (Carol 2014b)
 a. ?i-[?]já-ha? ~ ?i-[?]já-he? /i-[?]já-hi(j)/
 3.I.RLS-drink-APPL:inside
 's/he drinks'

Another instance where *h is preserved intervocally after a low vowel is at the left margin of roots (perhaps due to the fact that the syllable in question is typically stressed: PCh *ʔa-hááke? 'your ditch', *ʔa-hétek 'your head', *ʔa-hó? 'I go') and at the right margin of suffixes when these are followed by a vowel, such as the Iyojwa'aja' first-person plural active suffix -ah-, incomplete -tah-, and in the applicatives of the shape -ah- (either underlying or derived by translaryngeal assimilation).

8.1.1.5 PM *ji-

The sequence PM *ji is reflected as PCh *ʔi in the word-initial position.

- (228) PM *jijá'ts 'dew' > Mk ije'ts • Ni jija's • PCh *ʔijés-tah • PW *ʔijás
 (229) PM *jiju's ~ *jijú's 'wax' > Ni jiju's • PCh *ʔijús
 (230) PM *jiná't, *jinát-its 'water' > Ni jiná't, jinát-is • PCh *ʔi'nát (*-es) • PW *ʔinát (*-es)
 (231) PM *ji'no, *ji'nó-l 'man' > PCh *ʔi'nó? (*-l) • PW *hi'no, *hi'nó-l^h
 (232) PM *jixá(?) ~ *jixá(?) 'to be true' > Mk ixa • Ni jixá? • PCh *ʔihá<wet>

When followed by a glottalized consonant and a low vowel (PM *a or *á, but not *ä), PM *ji > *ʔi changed to PCh *ʔa word-initially (§8.1.2.4).

- (233) PM *ji'já[?]X₁₂ 'jaguar' > Ni ji'já[?]x • PCh *ʔa'já^h • PW *ha'já^χ
 (234) PM *ji'lá?, *ji'lá-j^h 'tree' > Ni ji'klá? (-j) • PCh *ʔa'lá? (*-j^h) • PW *ha'lá, *ha'lá-j^h
 (235) PM *jit'á?, *jit'á-l 'vulture' > Ni jit'á?(-k) • PCh *ʔat'á? (*-l) • PW *hat'á(?)

Word-medially, no change occurs.

- (236) PM *-qéj-its 'customs' > Ni -kej-is • PCh *-qéj-is • PW *-qéj-is
 (237) PM *-[?]wój-its 'blood.PL' > PCh *(-)[?]wój-is • PW *-[?]wój-is

8.1.1.6 *[ʔ]-insertion

A glottal stop is inserted after word-final vowels and after the approximant *j in Chorote, in stressed and unstressed syllables alike. The opposition *ʔ vs zero is thus neutralized in Proto-Chorote word-finally. Carol (2014a: 85–89) argues that even synchronically the word-final instances of [ʔ] in Iyojwa'aja' are best analyzed as inserted, whereas words that phonetically end in a vowel or a non-glottalized sonorant actually end in an underlying /h/, which is deleted before a pause in unstressed syllables.

- (238) PM **n-ap'u* ~ **n-aɸ'u* (~ **-á-* ~ **-ú*) 'to lick' > Ni *n-ap'u* • PCh **[ʔi]<n>áp'u?* • PW **<n>ap'u* ~ **<n>áp'u* ~ **<n>ap'uh*
- (239) PM **-e*, **-é-l* 'thorn' > Mk 3 *ɬ-i?* • Ni *-e?*(-k) • PCh 3 **hl-é?* (*-l) • PW **-ɬ-e*
- (240) PM **-éj* (*-its) 'name' > Mk *-ij* (-its) • Ni *-ej* (-is) • PCh **-éj?* (*-is) • PW **-ɬ-éj* (*-is)
- (241) PM **ɸaʔáj* 'algarrobo fruit (*Prosopis alba*)' > Ni *ɸaʔaj* • PCh **hwaʔáj?* • PW **x^waʔáj^h*
- (242) PM **[ji]ɸáʔjá* ~ **ɸáʔjá* 'to fly' > Ni *[ji]ɸáʔjá* • PCh **[ʔi]hwéʔjá?* • PW **x^weʔjá* ~ **w-* ~ **-i-*
- (243) PM **-ɸqató* (*-l) 'elbow' > Ni *-(ʔV)ɸkato* (-k) • PCh **-qató?* (*-l) • PW **-qáto* (*-l^h)
- (244) PM **ji'no*, **ji'nó-l* 'man' > PCh **ʔi'nó?* (*-l) • PW **hi'no*, **hi'nó-l^h*
- (245) PM **-ka*, **-ká-l* 'tool, skillful person' > Ni *-tʃa?*(-k) • PCh **-ká?* (*-l) • PW **-kⁱa*, **-kⁱá-l^h*
- (246) PM **-ko(?)j* (*-áj^h) 'hand, arm' > Mk *-koj* (-ej) • PCh **-kój?*, **-koj-áj^h*
- (247) PM **k'alxó* (*-ts) 'armadillo sp.' > Mk *k'olo'x* • Ni *k'akxo* (-s) • PCh **k'ihlól?* (*-s) • PW **k^j'anhóh*
- (248) PM **-k'o*, **-k'ó-l* 'bottom' > Ni *-k'ó?*(-k) • PCh **-k'ó?* • PW **-k^jo*, **-k^jó-l^h*
- (249) PM **-k'u*, **-k'ú-l* 'horn, club' > Mk *-k'u?*(-l) • Ni *-k'u?*(-k) • PCh **-k'ú?* (*-l) • PW **-k^ju*, **-k^jú-l^h*
- (250) PM **k'uj* ~ **k'új* 'cold' > Mk *k'wi* / *k'uj* • Ni *k'uj* • PCh **k'új?*
- (251) PM **lkéte* 'squash' > Mk *lekiti* • PCh **kéte?*
- (252) PM **ɬúmʔa* 'day' > Ni *ɬumʔa-* • PCh **hlúma?*
- (253) PM **[ji]má* 'to sleep' > Mk *[i]ma?* • Ni *[ji]má?* • PCh **[ʔi]má?* • PW **[ʔi]má*

8.1 From Proto-Mataguayan to Proto-Chorote

- (254) PM **mijó* (*-l) ‘savannah hawk’ > Mk *mijo* (-l) • Ni *mijo* (-k) • PCh **mijó?* (*-l) • PW **mijóh*
- (255) PM **ñk’a* ‘new’ > Mk *i’nk’a* • Ni *nitʃa* • PCh **ñk’á?* • PW **nek’i’a* ~ **nek’i’e* ~ **nék’i’e*
- (256) PM **-ó* (*-l) ‘penis’ > Ni *-o?* (-k) • PCh **-ó?* (*-l) • PW **-t-ó* (*-l^h)
- (257) PM **-pák’o* ‘heel’ > PCh **-pók’o?* • PW **-pák’i’o*
- (258) PM **péta(°)j*, **pétaj-its* ‘rain’ > Mk *pitěj* (-its) • PCh **péhlaj?* • PW **pétaj^h*, **pétaj-is*
- (259) PM **-qáka* (*-l) ‘medicine’ > PCh **-qáka?* (*-l) • PW **-qák’i’a* (*-l^h)
- (260) PM **-qéj* (*-its) ‘custom’ > Ni *-kej* (-is) • PCh **-qéj?* (*-is) • PW **-qéj* (*-is)
- (261) PM **sláqha(°)j*, **sláqhaj-its* ‘wild cat’ > Ni *sklâkxaj* ~ *sklâkxaj* (-is) • PCh **s^olâhqaj?* ~ **s^olâhqâj?* (*-is) • PW **silâqhâj*
- (262) PM **-t’ij* ~ **-t’íj* ‘to move’ > Ni *[βa]t’ij* • PCh **[ʔi]t’ij?*
- (263) PM **-wó* (*-ts) ‘worm’ > Ni *-βo?* (-s) • PCh **-wó?* (*-s) • PW **-wó* (*-s)
- (264) PM **-w(t)s’é* (*-l) ‘belly’ > Ni *-βts’e* (-k) • PCh **-ts’é?* (*-l) • PW **-ts’é* (*-l^h)
- (265) PM **-^owo*, **-^owó-l* ‘neck’ > Mk *-wo<nxe?* • Ni *-^oβo?* (-k) • PCh **-^owó?* (*-l) • PW **-^owo*, **-^owó-l^h*
- (266) PM **-xa*, **-xá-l* ‘price’ > Ni *-fa?* (-k) • PW **-ha*, *-há-l^h*
- (267) PM **ʔaφu* ~ **ʔaφú* ‘woman’ > Mk *efu* • PCh **ʔahwú?*
- (268) PM **-ʔi* (*-l) ‘liquid, juice’ > Mk 3 *t-^oi?* (-l) • Ni *-ʔi?* (-k) • PCh **-ʔi?* (*-l) • PW **-t-^oi* (*-l^h)
- (269) PM **ʔ[j]o* ‘to be ripe’ > PCh **ʔ[j]ó-ʔe?* • PW **ʔ[j]o*

The glottalized approximant PM **ʔj* is likewise reflected as PCh **j?* word-finally, thus merging with PM **j*.

- (270) PM **-ǎʔj*, **-ǎj-is* ‘yica bag’ > Ni *-aʔj*, *-aj-is* • PCh **-éj?* (*-is) • PW **-t-éj* (*-is)
- (271) PM **[ji]φiʔj* ~ **[ji]φíʔj* ‘not to be afraid’ > Ni *[ji]φiʔj* • PCh **[ʔi]hwíj?* • PW **[ʔi]x^wíj-eh*
- (272) PM **kulaʔj* ~ **kuláʔj* ‘sun’ > Ni <*xum*>*kuklâʔj* • PCh **kuláj?*

8.1.1.7 Sporadic glottalization

In a very restricted number of roots, Chorote has a glottalized sonorant where other Mataguayan languages have a plain one. We attribute this sound correspondence to a sporadic sound change whereby some sonorants irregularly became glottalized in Chorote.

- (273) PM *[ji]jǎʔ ‘to drink’ > Mk <i>jaʔ • Ni [ji]jǎʔ • PCh *[ʔi]ʔjǎʔ • PW *[ʔi]jǎʔ
- (274) PM *jinǎʔt, *jinǎʔt-its ‘water’ > Ni jinǎʔt, jinǎʔt-is • PCh *ʔiʔnǎʔ (*-es) • PW *ʔinǎʔ (*-es)
- (275) PM *[ʔa]lólχ, *[ʔa]lól-ts ‘many’ > Mk <o>lo<ts> • Ni <ʔa>k̄lox • PCh *[ʔa]ʔlólh • PW *<ʔa>lól<s>
- (276) PM *-qalǎʔ (*-j^h) ‘leg’ > Ni -kaklǎʔ (-j) • PCh *-qaʔlǎʔ ~ *-qǎʔlǎʔ (*-j^h) • PW *-qǎlǎʔ (*-j^h)

An anonymous reviewer brought our attention to the fact that sporadic glottalization seems to affect forms that otherwise contain PCh *ʔ, but we have been unable to formulate a precise predictor of the process in question in terms of a regular, contextually conditioned sound change.

8.1.1.8 Glottal dissimilation

When two consecutive syllables have glottalized consonants as their onsets in PM, Chorote deglottalizes the onset of the first syllable in a development shared with Wichí (§9.1.1.9). (278) shows some irregularities regarding the place of articulation of the dissimilating consonants.

- (277) PM *kʔékʔeh ‘monk parakeet’ > Ni tʔetʔe • PCh *kékʔeh • PW *kʔékʔe
- (278) PM *tsʔatsʔih, *tsʔatsʔi-l ‘rufous hornero’ > Mk tsʔitsʔi (-l) • Ni tsʔatsʔi (-k) • PCh *sátʔih • PW *tátsʔi
- (279) PM *ʔ-ʔá(j)kʔi-l ‘its saliva (PL)’ > Ni t-ʔatʔi-k • PCh *ʔ-ájʔi<l><is> • PW *ʔ-ákʔi<l^h>
- (280) PM *ʔ[j]ópʔaleʔ ‘to hiccup’ > Ni [j]opʔak̄le / -ʔopʔak̄le ‘to choke’ • PCh *ʔ[j]ópʔaleʔ • PW *ʔ[j]ópʔle

8.1.1.9 Deglottalization of preglottalized codas

Most preglottalized codas of Proto-Mataguayan merge with their plain counterparts in Chorote by means of deglottalization. This includes the codas *ʔp, *ʔt, *ʔts, *ʔk, *ʔp, *ʔt, *ʔs, *ʔx, *ʔχ, and *ʔj (the latter coda actually yields PCh *jʔ, but so does plain PM *j in the word-final position thanks to the *ʔ-insertion process).

- (281) PM *-ajeʔk ~ *-ajeʔk ‘honey comb’ > Ni -ajeʔtf • PCh *-q-ájek
- (282) PM *-áʔt, *-át-its ‘drink’ > Ni -áʔt, -át-is • PCh *-át (*-es) • PW *-t-át
- (283) PM *-áʔs ‘son’ > Mk -aʔs • Ni -áʔs • PCh *-ás • PW *-t-ás
- (284) PM *-áʔj, *-áj-is ‘yica bag’ > Ni -aʔj, -aj-is • PCh *-éjʔ (*-is) • PW *-t-éj (*-is)
- (285) PM *[ji]ʔáʔx ‘to cut down’ > Mk fex-inet-kiʔ ‘ax’ • Ni [ji]ʔaʔf • PCh *[ʔi]hwáh-APPL • PW *[ʔi]xʔáχ
- (286) PM *ʔáʔx ~ *ʔáʔx ‘field’ > Ni ʔaʔf • PCh *hwéh
- (287) PM *[ji]ʔiʔj ~ *[ji]ʔiʔj ‘not to be afraid’ > Ni [ji]ʔiʔj • PCh *[ʔi]hwíjʔ • PW *[ʔi]xʔíj-eh
- (288) PM *[ji]ʔiʔk ~ *[ji]ʔiʔk ‘to hide’ > Ni [ji]ʔiʔtf • PCh *[ʔi]hwík
- (289) PM *-ʔuʔt ~ *-ʔúʔt, *-ʔtú-ts ‘flatulence’ > Mk -ʔtu-ts • Ni -ʔuʔt, -ʔtu-ts • PCh *-hwút
- (290) PM *jijáʔts ‘dew’ > Mk ijeʔts • Ni jijaʔs • PCh *ʔijés-tah • PW *ʔijás
- (291) PM *jijuʔs ~ *jijúʔs ‘wax’ > Ni jijuʔs • PCh *ʔijús
- (292) PM *jináʔt, *jinát-its ‘water’ > Ni jináʔt, jinát-is • PCh *ʔiʔnát (*-es) • PW *ʔinát (*-es)
- (293) PM *-káʔs, *-káʔs-él ‘tail’ > Ni -káʔs, -káʔs-ek • PCh *-káʔs • PW *-kʔás, *-kʔás-el^h
- (294) PM *kowäʔx / *-kówäʔx ‘hole’ > PCh *kowéh / *-kóweh • PW *kʔowex / *-kʔóweχ
- (295) PM *kulaʔj ~ *kuláʔj ‘sun’ > Ni <xum>kuklaʔj • PCh *kulájʔ
- (296) PM *[ji]kúʔt ‘to answer’ > Mk [j]<e>kuʔt • Ni [ji]kuʔt • PCh *[ʔi]kúhl-APPL • PW *[ni]kʔút
- (297) PM *(-)kʔútsaʔχ, *(-)kʔútsa-ts ‘old’ > Mk kʔútsaʔχ, kʔútsa-ts • Ni kʔútsaʔx, kʔútsa-s • PCh *-kʔúsaʔ, *-kʔúsa-s • PW *-kʔútsaχ
- (298) PM *[ji]léʔx ‘to wash’ > Mk [ji]lix-uʔ ‘to clean’ • Ni [ji]kléʔf • PCh *[ʔi]léh • PW *[ʔi]léχ

- (299) PM **lo'p* ~ **lóp*, **lop-its* ~ **lóp-its* 'winter' > Mk *lo'p*, *lop-its* • Ni *klo'p*, *klop-is* • PCh **lóp* • PW **lop* ~ **lóp*
- (300) PM *-*li'x*, *-*lix-áj^h* 'language, word' > Mk -*lix<e?>* • Ni -*kli'f*, -*kli^h-aj* • PCh *-*lih*, *-*lih-áj^h*
- (301) PM *-*tí'k* ~ *-*tí'k*, *-*tí-j^h* 'thread' > Ni -*tí'tf*, -*tí-j<is>* • PCh *-*hlík*, *-*hlí-j^h*
- (302) PM *-*tú'k*, *-*tú-j^h* 'yica bag, load' > Mk -*tú'k*, -*tú-j* • Ni -*tú'k* • PCh *-*hlúk*, *-*hlúj-...* • PW *-*túk^w*, *-*tú-j<is>*
- (303) PM *-*má'k*, *-*mhá-j^h* 'powder, flour' > Ni -*má'k*, -*mxa-j* • PCh *-*mák* • PW *-*mók^w*, *-*mhó-j^h*
- (304) PM *-*na'x* ~ *-*ná'x* / *-*nxa-* ~ *-*nxá-* 'nose' > Mk -*ne'x* / -*nxe-* • Ni -*na'f*, -*nfa-s* • PCh *-*hná<tVwoh>* • PW *-*nh<us>*
- (305) PM *-*nji'x* 'smell' > Mk -*nji'x* • Ni -*ni'f* • PCh *-*nih* • PW *-*niχ*
- (306) PM *-*pás-e't* 'lip' > Ni -*pás<e't>* • PCh *-*pás<at>* ~ *-*pás<át>* • PW *-*pás<et>*
- (307) PM *-*p'o'k* ~ *-*φ'o'k* 'fence' > Ni -*p'o'k* • PCh *-*p'ók* • PW *-*p'ok^w*
- (308) PM *-*p'o't* 'lid' > Mk -*p'ot<o?>* • Ni -*p'o't* • PCh *-*p'ót* • PW *-*p'ot*
- (309) PM **qati'ts*, **qatits-él* 'star' > Ni *kati's* • PCh **qatés*, **qates-él* • PW **qates*, **qatés-el^h*
- (310) PM *-*sá't* 'vein' > Mk -*?a>sa't* • Ni -*sá't* • PCh *-*sát-* • PW *-*sát*
- (311) PM **tá't* 'to sprout' > Mk *ta't* • Ni *tá't* • PCh **tát* • PW **tát*
- (312) PM *-*táwä'x*, *-*táwxä-ts* '(abdominal) cavity' > Mk -*tawé'x*, -*tawxe-ts* • Ni -*tâβa'f*, -*tâβxa-s* • PCh *-*tóweh* • PW *-*tóweχ*
- (313) PM **ti'φ* 'to suckle' > Mk *tu'f* / -*tú'f* • Ni *ti'φ* • PCh **[ʔi]ti_M* • PW **tip*
- (314) PM **tijá'χ* 'to shoot, to throw' > Mk *tija'χ* / -*tija'χ* • Ni *tijá'x* • PCh **[ʔi]tijâh* • PW **tijâχ*
- (315) PM *-*ti't* 'to spin, to sew' > Mk *[ji]ti't* • Ni *ti't* • PCh **[j]-á>ti't*
- (316) PM **tiłá'x* 'to carry on one's shoulders' > Mk *tiło'x* / -*tílo'x* • Ni *tiłá'x* • PCh **[ʔi]tiłâh* • PW **tiłâχ*
- (317) PM **ti'x* 'to dig' > Mk *ti(?)x-APPL* / -*tí(?)x-APPL* • Ni *ti'f* • PCh **[ʔi]ti^h-ij?* • PW **tiχ*
- (318) PM **tlú'k* 'blind' > Ni *taklu'k* • PCh **t'lúk* • PW **tilúk^w*
- (319) PM *-*txo'k* ~ *-*txó'k*, *-*txóko-wot* 'uncle' > Mk -*txo'k* • Ni -*txo'k*, -*txoko-βot* • PCh *-*<i>tók*, *-*<i>tóko-wot* • PW *-*<wi>thok^w*

8.1 From Proto-Mataguyan to Proto-Chorote

- (320) PM **tsänúʔk* ‘duraznillo trees’ > Ni *tsanuʔk* • PCh **sinúk* • PW **tsinúk*^w
- (321) PM **-úʔp*, **-úp-its* ‘nest’ > Mk 3 *ʔ-up* (-its) • Ni *-uʔp*, *-up-is* • PCh **-úp* (*-is) • PW **-ʔ-úp* (*-is)
- (322) PM **-wáʔk* ‘bad mood’ > Mk *-wak* • Ni *-βáʔk* • PCh **-wák* • PW **-wák*^w
- (323) PM **-wáʔx*, **-w(ä)x-ájʰ* ‘burrow; anus’ > Ni *-βaʔf*, *-βaf-ajʰ* • PCh **-wéh* • PW **-wéχ*, *-wh-ájʰ*
- (324) PM **ʔwäleʔk* ‘to walk’ > Mk *-<i>ʔwelki-ʔmet* ‘to limp’ • Ni *βakléʔtf* • PCh **[ʔi]ʔwélek* • PW **ʔweleq*
- (325) PM **-ʔwVʔt* ~ **-ʔwVʔt* ‘to climb’ > Mk *weʔt* • Ni *βáʔt* • PCh **[ʔi]ʔwúʔt* • PW **[t]ʔwuʔt* ~ **[t]ʔwúʔt*
- (326) PM *(*X₁₃on*-)*xaʔχ*, *(*X₁₃on*-)*xáh-ajʰ* ‘night’ > Mk *<na>xaʔχ* • Ni *<xon>faʔx*, *<xon>faʔx-aj* • PCh **<ʔa>h<n>áh* ~ **<ʔá>h<n>áh* • PW **<hon>aχ*, **<hon>áh-ajʰ*
- (327) PM **-xáteʔk*, **-xáthe-jʰ* ‘head’ > Ni *-fateʔtf*, *-fatxe-s* • PCh **-hétek*, **-héhte-jʰ* • PW **-ʔ-éteq*, **-ʔ-éthe-jʰ*
- (328) PM **...X₂₃aʔt* (*-its) ‘earth’ > Ni *<kots>xaʔt*, *<kots>xat-is* • PCh **<ʔa>h<n>át* ~ **<ʔá>h<n>át* (*-es) • PW **<hon>hat*, **<hon>hát-es*
- (329) PM **X₁₃óʔk* ‘palo santo (*Bulnesia sarmientoi*)’ > Ni *xoʔk* • PCh **hók* • PW **hók*^w
- (330) PM **X₁₃óʔt* ‘sandy place’ > Ni *xoʔt* • PCh **hót* • PW **hót*
- (331) PM **-X₁₃uʔk*, **-X₁₃ú-jʰ* ‘firewood’ > Ni *-xuʔk*, *-xu-j* • PCh **(ʔitáh)-huk* • PW **-huk*^w, **-hú-j<is>*
- (332) PM **-ʔaqhuʔts* ~ **-ʔaqhúʔts* ‘knee’ > Mk *-aqhuʔts* • Ni *-(ʔa)kxuʔs* • PCh **-ʔaqús*
- (333) PM **ʔiʔjáʔX₁₂* ‘jaguar’ > Ni *ʔiʔjáʔx* • PCh **ʔaʔjáʰ* • PW **haʔjáχ*
- (334) PM **ʔatuʔχ* ~ **ʔatúʔχ* ‘snake sp.’ > Ni *ʔatuʔx* • PCh **ʔatúh*
- (335) PM **-ʔoʔt* ~ **-ʔóʔt* ‘chest’ > Ni *-ʔoʔt* • PCh **-ʔót*

By contrast, the examples below show that PM **ʔm*, **ʔn*, **ʔl* are preserved in Chorote. In Manjui and most likely in Iyo’awujwa’, they still contrast with their non-glottalized equivalents. Iyojwa’aja’ has innovated in that all word-final sonorants are now glottalized in that language, and the glottalization has ceased to be contrastive in that position.

- (336) PM **-áʔl* ‘light, brightness’ > PCh 3 **hl-áʔl* • PW **-ʔ-álʰ*

- (337) PM **-áʔm* ‘pronominal formative’ > PCh **-áʔm* • PW **-áʔm*
- (338) PM **kóʔl* ‘locust’ > PCh **kóʔl* • PW **kʰólʰ*
- (339) PM **kʰutX₂₃áʔn*, **kʰutX₂₃án-its* ‘thorn’ > Ni *kʰutxaʔn*, *kʰutxan-is* • PCh **kʰutáʔn*, **kʰután-is* • PW **kʰjʰutháʔn*, **kʰjʰuthán-is*
- (340) PM **[ji]táʔm* ‘to defecate’ > Mk <*i>taʔm* • Ni *[ji]táʔm* • PCh **[ʔi]hláʔm* • PW **[t]<a>táʔm*
- (341) PM **stwúʔn*, **stwún-its* ‘king vulture’ > Ni *staβuʔn*, *staβun-is* • PCh **ʔstúuʔn*, **ʔstúun-is* • PW **ʔistíwin*
- (342) PM **-ʔäsxaʔn*, **-ʔäsxán-its* ‘meat’ > Mk *-ʔeseʔn*, *-ʔesen-its* • Ni *-(ʔa)sxaʔn*, *-(ʔa)sxan-is* • PCh **-ʔisáʔn*, **-ʔisán-is* • PW **-tʰ-isaʔn*, **-tʰ-isán-is*

8.1.1.10 PM **ɸʰ*, **sʰ*, **tʰ* > PCh **pʰ*, **tʰ*

Another sound change in Chorote, shared with Wichí and Nivačle but not with Maká, consists of the fortition of the Proto-Mataguayan glottalized fricatives (phonologically possibly analyzable as tautosyllabic sequences of a fricative and a glottal stop) to glottalized stops: PM **ɸʰ*, **sʰ*, **tʰ* > PCh **pʰ*, **tsʰ*, **tʰ*. (The sequence **kɸʰ*, however, changed to PCh **kʰw* or possibly **kʰ*.)

- (343) PM **(-)ɸʰelxVtséx*, **(-)ɸʰelxVtsé-ts* ‘poor’ > Mk *-fʰilxetsax*, *-fʰilxetsi-ts* • PCh **pʰilusáh*, **pʰihlusé-s* • PW **pʰelítsax*, **pʰelítse-s*
- (344) PM **sʰám* (*-its) ‘frog sp.’ > Mk *sʰam-sʰam* (-its) • PCh **tsʰám* (*-its)
- (345) PM **tʰ-áX₂₃te(?)* (*-jʰ) ‘her breast’ > Ni *tʰ-axte* (-j) • PCh **tʰ-áhateʔ* (*-jʰ) • PW **tʰ-áte* (*-jʰ)
- (346) PM **tʰ-áx* ‘skin, bark’ > Mk *tʰ-ax* • Ni *tʰ-áx* • PCh **tʰ-áh* • PW **tʰ-áx*
- (347) PM **tʰ-äsxaʔn*, **tʰ-äsxán-its* ‘meat’ > Mk *tʰ-eseʔn*, *tʰ-esen-its* • Ni *tʰ-asxaʔn*, *tʰ-asxan-is* • PCh **tʰ-isáʔn*, **tʰ-isán-is* • PW **tʰ-isaʔn*, **tʰ-isán-is*
- (348) PM **tʰ-í* (*-l) ‘liquid, juice’ > Mk *tʰ-iʔ* (-l) • Ni *tʰ-iʔ* (-k) • PCh **tʰ-íʔ* (*-l) • PW **tʰ-í* (*-lʰ)
- (349) PM **tʰ-úʔ* ‘you urinate’ > Mk *tʰ-uʔ* • Ni *tʰ-uʔ* • PCh **<hʔ>tʰ-úʔ* • PW **<ʔ>tʰ-úʔ*
- (350) PM **tʰ-úʔtu(?)* ‘her/his urine’ > Ni *tʰ-utʰu* • PCh **tʰ-úhluʔ* • PW **tʰ-úʔtu*

As a result of the sound change PM **tʰ* > **tʰ*, Chorote now displays a morphophonological rule which converts the underlying sequence */hl+ʔ/ into **tʰ* (rather than *tʰ*, as in Maká). The rule is no longer entirely productive in Chorote,

since the sequence of /hl/ and /ʔ/ actually yields *hʔl* at the stem–suffix/enclitic boundary, as in Iyojwa’aja’ /táhl+ʔe/ → *táhʔleʔ* ‘exits from’.

8.1.1.11 Syllabic consonants

The syllabic consonants of Proto-Mataguayan are reflected in Chorote as sequences of the shape PCh **Cʷ* (see §8.1.2.6 on the status of PCh **ʷ*), except for the syllabic nasal **ŋ*. This is seen in the allomorphy pattern of several prefixes, which show up as PCh **Cʷ*-before supraglottal consonants, but as PCh **C*-before vowels (a position where the prefixes in question were not syllabic in PM) and before glottal consonants. In addition, the prefixes in question fuse with a stem-initial **ʔ*, resulting in a glottalized consonant (see also §8.1.1.10). Prefixes that show such allomorphy include the third-person T-class verbal prefix (PCh **tʷ*- / **t*- / **t*-’...), the third-person possessive prefix (PCh **hʷ*- / **hl*- / **t*-’...), the second-person active prefix (PCh **hʷ*- / **hl*- / **hʷt*-’...), the feminine prefix in demonstratives (PCh **ha*- ~ **há*- / **hl*-).⁶ A similar pattern is seen in the first-person inactive realis prefix PCh **sʷ*- / **s*- / **ts*-’..., though its Proto-Mataguayan etymon is not known to have contained a syllabic consonant. The syllabic allomorphs in each Chorote lect are illustrated below; note that PCh **ʷ* is typically reflected as *i* in the contemporary varieties.

(351) Iyojwa’aja’ (Carol 2014b)

- a. ti-més
3.T.RLS-be_two
‘they are two’
- b. ti-ʰákiʔn
3.T.RLS-play/dance
‘s/he plays/dances’
- c. ta-kásit
3.T.RLS-stand
‘s/he stands’
- d. hi-kʰóʔ
3.POSS-hand
‘his/her hand’

⁶We presently have no explanation for the occurrence of a low vowel – as opposed to **ʷ* – in the preconsonantal allomorph of the feminine prefix in demonstratives.

8 Chorote

- e. hi-tⁱét-e
2.ACT-throw-APPL
'you throw it for her/him'
- f. ha-na
F-DEM:outside_hands'_reach
'this.F (outside one's hands' reach)'

(352) Iyo'awujwa' (Gerzenstein 1983: 66, 74, 75)

- a. ti-lák'en
3.T.RLS-play
's/he plays'
- b. te-kénis'en
3.T.RLS-sing
's/he sings'
- c. hi-póʔo
3.POSS-heel
'his/her heel'
- d. hi-pén
2.ACT-cook
'you cook'

(353) Manjui (Carol 2018)

- a. ti-khán
3.T.RLS-dig
's/he digs'
- b. hi-l'áhwa-aj
3.POSS-pet-PL
'his/her pets'
- c. hi-^ʔwén
2.ACT-see
'you see her/him/it'
- d. ha-na
F-DEM:outside_hands'_reach
'this.F (outside one's hands' reach)'

The non-moraic allomorphs (identical to those found before vowels) also occur before underlying PCh **h* < PM **x*, and PCh **h* is then elided, as in PCh **hl-étek*

‘her/his head’ (from **-hétek* ‘head’); **hl-ó?* ‘you go’ (from **-hó?* ‘to go’). This is quite likely an innovation.

There is a potential correspondence between the reportative enclitic PCh **=h^ən* (> Ijw =*he^ən*, I’w/Mj =*hen*) and Ni =*†ân* ‘id.’. The comparison is doubtful since the vowel correspondences are not regular, but it is conceivable that the Proto-Chorote form derives from an earlier (pre-Proto-Chorote) **=†n* > **=h^ən*. Interestingly, the initial consonant of Ijw/I’w/Mj =*he(°)n* never labializes to *hw* after a rounded vowel, feeding translaryngeal vowel assimilation instead (as in Mj *?i-jó-hon* ‘s/he/it became (hearsay)’), in stark contrast with the homonymous suffix Ijw/I’w -*he(°)n* ‘downwards; verbal plural’.

8.1.1.12 Consonant + guttural fricative

Proto-Mataguayan clusters of the shape **MX* (where *M* stands for a sonorant and *X* for any of *x*, **χ*, or **h*) yield PCh **hM*. When the first consonant in the cluster is a plosive (**PX*), the outcome is PCh **P* except after a stressed vowel, in which case the reflex is PCh **hP*, and word-initially, where the reflex PCh **PVh* is found. Note that in all known cases the clusters of the shape PCh **hP* (where *P* stands for a stop) go back to PM **Ph* (as opposed to PM **Px* or **Pχ*), which could be a coincidence or not. The clusters of the shape PM **tsX* yield PCh **s* (synchronically, [s] and [xs]/[hs] do not contrast in any Chorote variety, but rather occur as possible realizations of /s/ of any origin after vowels). The clusters of the shape PM **Fx* and PM **Fχ*, where **F* is a fricative, lose the dorsal fricative in Proto-Chorote and evolve just like PM **F*. Recall that clusters of the shape PM **Fh* are banned in Proto-Mataguayan (§5.2.4).

The examples below show the development PM **MX* > PCh **hM*. (372) is an exception, where the metathesis is prevented by irregular vowel insertion.

- (354) PM **-φólXa^ən* ‘ankle’ > PCh **-hwóhla^ən* • PW **-x^wónha^ən*
- (355) PM **k’alxó* (**-ts*) ‘armadillo sp.’ > Mk *k’olo^x* • Ni *k’akxo* (-s) • PCh **k’ihló?* (**-s*) • PW **k’^janhóh*
- (356) PM **-k’ínχá?* [?] **-k’ínxá?* (**-wot*) ‘younger sister’ > Mk *-k’inχa?* [?] *-k’inxa?*
• Ni *-tfinxá* (*-bot*) • PCh **-k’ihná?* (**-wot*) • PW **-k’^jinhá*
- (357) PM **(-)níjhâ-j^h* ‘ropes, cords’ > Mk *(-)nijha-j* • Ni *-nijxâ-j* • PCh **níjhâ-j^h*
• PW **níjhâ-j^h*
- (358) PM **-nxa-* ~ **-nxá-* ‘nose’ > Mk *-nxe-* • Ni *-nfa-* • PCh **-hná<tVwoh>* • PW **-nh<us>*

- (359) PM * η -xáte? (*-l) $\overset{?}{\sim}$ * η -xáti? ‘dream, sleepiness’ > Mk -nixati? (-l) • Ni nxáte (-k) • PCh * η ihnáti? • PW *naháti
- (360) PM *[ji]nxi’wän ‘to smell’ > Mk [ji]nxi’wen • PCh *[η]hni’wen
- (361) PM *-nX₂₃aq(‘)át ‘to snore’ > Ni [ta]nxakát • PCh *[η]hnáq’át
- (362) PM *-nX₂₃atá? ‘nasal mucus’ > Ni -nxatá? • PCh *-hnát<ijah-PL>
- (363) PM *(-)nájx-aj^h ‘paths’ > Ni (-)nájf-aj • PCh *(-)náhj-aj^h • PW *(-)nájh-aj^h
- (364) PM *[t]qánhan ‘to fish with a hook’ > Mk [ta]<qa>qanhen • PCh *[t^o]qánhan • PW *[t]qánhan
- (365) PM *-témh-aj^h ~ *-támh-aj^h ‘bile.PL’ > PCh *-témh-aj^h • PW *-témh-aj^h
- (366) PM *-whá’ja? ‘spouse’ > Mk -whe’je? • Ni -xa’ja • PCh *-hwá’ja?
- (367) PM *[t]wha’já-’j ‘to marry’ > Mk [te]whe’je-j • Ni [t]xa’ja-’j • PCh *[t^o]hwa’jé<j?> • PW *[t]wháje<j>
- (368) PM *xunxátaχ ‘tusca fruit’ > Mk xunxetaχ • Ni xunfataχ • PCh * η ihnátah • PW *^xnhátah
- (369) PM *xunxáta-(ju)ʔk ‘tusca tree’ > Mk xunxete-ʔk • Ni xunfata-juk • PCh * η ihnáta-k • PW *^xnháte-q
- (370) PM *xunxáta-kat ‘tusca grove’ > Mk xunxete-ket • Ni xunfata-tfat • PCh * η ihnáta-kat
- (371) PM * η ánhajeχ ‘wild bean (*Capparis retusa*)’ > Mk anhejaχ • Ni η ánxajex • PCh * η óhnajah • PW * η ánhjaχ
- (372) PM * η [j]éjxáts-han ‘to teach’ > Mk [j]ixats<hen> • Ni [j]éjxats-xan / - η ejxats-xan • PCh * η [j]éjáhás<an>

The following examples show that PM *Ph normally yielded PCh *hP after a stressed vowel. We are not aware of any clear examples of PM *Px or *Pχ in that environment, so we technically do not know what the Chorote reflexes of PM *Px, *Pχ would be after a stressed vowel.

- (373) PM *sláqha(ʔ)j, *sláqhaj-its ‘wild cat’ > Ni $\widehat{fkl}ákxaj \sim \widehat{skl}ákxaj$ (-is) • PCh *s^oláhqaj? ~ *s^oláhqáj? (*-is) • PW *siláqhâj
- (374) PM *títthe-j^h ‘plates’ > Ni (-)titxe-j • PCh *títthe-j^h
- (375) PM *wáth(â-j)uʔk ‘palo flojo tree’ > Ni $\widehat{b}átxâ-juk$ • PCh *wáht<uk>
- (376) PM *-xáthe-j^h ‘heads’ > Ni -fatxe-s • PCh *-héhte-j^h • PW *-t-éthe-j^h

- (377) PM **-ʔóʔthale(?)* ~ **-ʔóʔthále(?)* ‘heart’ > PCh **-ʔóhtale?* ~ **-ʔóhtále?* • PW **-tʔótle*

Word-initially, PCh **hC* and **Ch* are not permitted, and a vowel is then inserted to break up the illicit cluster.

- (378) PM **khát* ‘cactus’ > Mk *khat-uʔk* • Ni *kxat* • PCh **kâhát* • PW **kʰáhát*
 (379) PM **pháʔm* ‘up’ > Mk *-phaʔm* • PCh **pʰháʔm* • PW **-phâ / *phâm-*

The examples below show the development of PM **PX* after an unstressed vowel.⁷

- (380) PM **kʷutX₂₃áʔn*, **kʷutX₂₃án-its* ‘thorn’ > Ni *kʷutxaʔn*, *kʷutxan-is* • PCh **kʷutáʔn*, **kʷután-is* • PW **kʷʰutháʔn*, **kʷʰuthán-is*
 (381) PM **-pxúse?* (**-jʰ*) ‘beard’ > Mk *-<a>pxusi?* (*-j*) • Ni *-pâse* (*-j*) • PCh **-púse?* (**-jʰ*) • PW **-pâse* (**-jʰ*)
 (382) PM **-ʔtxoʔk* ~ **-ʔtxóʔk*, **-ʔtxóko-wot* ‘uncle’ > Mk *-txoʔk* • Ni *-ʔtxoʔk*, *-ʔtxoko-βot* • PCh **-<i>tók*, **-<i>tóko-wot* • PW **-<wi>thokʷ*
 (383) PM **-ʔaqhuʔts* ~ **-ʔaqhúʔts* ‘knee’ > Mk *-aqhuʔts* • Ni *-(ʔa)kxuʔs* • PCh **-ʔaqús*

Clusters of the shape PM **Fx* and **Fχ* always lose the guttural fricative (no clusters of the shape “fricative + **h*” existed in Proto-Mataguayan; see §5.2.4). Likewise, the cluster PM **tsh* yields PCh **s*; note that /s/ is often pronounced as [xs] or [hs] in the contemporary varieties of Chorote (see §8.2.2.11), but there is no contrast between [s] and [xs], thus the latter is not a true consonant cluster.

- (384) PM **phátshu-ts* ‘centipedes’ > Ni *phatsxu-s* • PCh **(h)wásu-s*
 (385) PM **[ji]phχán-* ~ **[ji]phχán-* ‘to kill a bird’ > Ni *[ji]phxan-APPL* • PCh **<?a>hwén-(n)ah* ‘bird’ • PW **<?a>xʷén-kʰe* ‘bird’
 (386) PM **-phχúx*, **-phχú-ts* ‘finger’ > Mk *-fux* • Ni *-phxux*, *-phxu-s* ‘toe’ • PCh **-hwu-ké?* • PW **-xʷúxʷ*, **-xʷú-s*

⁷Whenever a stop is followed by an applicative/adpositional suffix starting with PM **x*, or by PCh **-heʔn(eʔ)* ‘downwards; verbal plural’ < PM **-xáʔn(eʔ)*, Iyoʔawujwaʔ and Manjui show the reflex *hP* rather than the expected reflex **P*, as in Mj *téwakhʰ-ap* ‘by the river’, from *téwak* ‘river’ and *-hap* ‘by, surrounding’ < PM **xop*. It is possible to account for this by positing an analogical leveling based on the default development of PM **x* > PCh **h*. Examples (381) and (382) instantiate the regular development. Furthermore, applicatives/adpositions and PCh *-heʔn(eʔ)* might correspond to a phonological domain beyond the scope of the rule PM **Px* > PCh **P*.

- (387) PM **kéłɣa-juʔk*, **kéłɣa-jku-jʰ* ‘red quebracho’ > Mk *kełe-jku-* • Ni *tfełxa-juk*, *tfełxa-ku-j* • PCh **kéhla-juk* / **kéhla-jku-* • PW **k'ét-juk^w*, **k'ét-k'ju-jʰ*
- (388) PM **(-)k'útsha-ts* ‘old.PL’ > Mk *k'utshe-ts* • Ni *k'utsxa-s* • PCh **(-)k'úsa-s*
- (389) PM **ʷátshan* ~ **ʷátɣan* ‘to be healthy, alive’ > Ni *βatsxan* • PCh **ʷása'n* • PW **ʷátshan*
- (390) PM **ł-xăjk'u* (*-l) ‘egg’ > Ni *ł-fajk'u* (-k) • PCh **hl-éjk'u?* (*-l) • PW **ł-łk^j'u* (*-l^h)
- (391) PM **ł-xăteʔk* ‘head’ > Ni *ł-fatetf* • PCh **hl-étek* • PW **ł-éteq*
- (392) PM **(ʔa)X₁₃útsha-ts* ‘crested caracaras’ > Ni *xutsxa-s* • PCh **(ʔa)húsa-s* • PW **ʔahútsha-s*
- (393) PM **[j]éjxâts-han* ‘to teach’ > Mk *[j]ixats<hen>* • Ni *[j]ejxats-xan* / *-ʔejxats-xan* • PCh **[j]éjâhâs<an>*
- (394) PM **-ʔäsɣa'n*, **-ʔäsɣán-its* ‘meat’ > Mk *-ʔese'n*, *-ʔesen-its* • Ni *-(ʔa)sxa'n*, *-(ʔa)sxan-is* • PCh **-ʔisá'n*, **-ʔisán-is* • PW **-t-'isa'n*, **-t-'isán-is*

In a few cases, diagnostic cognates are lacking, and we have been unable to determine which guttural fricative is to be reconstructed for PM.

- (395) PM **kójXa(ʔ)t* ‘to be heavy’ > PCh **kóhjat-APPL* • PW **k'ójhat*
- (396) PM **[ji]łXón* ‘to roast’ > Ni *[ji]kxon* • PCh **[ʔi]hlón* • PW **[t]nhón*
- (397) PM **ʷlăjX₂₃VnăX₁₃ă* ‘Azara’s night monkey’ > Ni *klajxenăxă* • PCh **łéhjanăhă-ke?*
- (398) PM **łútsX₂₃a(ʔ)* (*-jek) ‘girl’ > Ni *łutsxa* (-jetf) • PCh **hlúsa?* (*-jek) • PW **łútsha*
- (399) PM **kpénX₁₃a-ts* ~ **kpănX₁₃a-ts* ‘orphans’ > PCh **kpéhna-s* • PW **k'pénha-s*
- (400) PM **[ji]-łXá(ʔ)t* ‘to throw, to put’ > PCh **[ʔi]tát-APPL* • PW **[ʔi]thát*
- (401) PM **ʷwánXăłăɣ*, **ʷwánXăłă-ts* ‘rhea’ > Mk *waałɣ* • Ni *βănxăłăx*, *βănxăłă-s* • PCh **ʷwánhlăh*, **ʷwánhlă-s* • PW **wă'nłăɣ*, **wă'nłă-s*
- (402) PM **ʔatsXa(ʔ)*, **ʔatsXă-l* ‘dorado’ > PCh **ʔasá?* (*-l) • PW **ʔatsha(ʔ)*, **ʔatshă-l^h*

The word-final clusters PM **jʰ* and **lʰ* (underlying */jh/ and */lh/) are preserved in Chorote.

- (403) PM *-(á)j^h ‘PL’ > Mk -(e)j • Ni -(a)j • PCh *-(á)j^h • PW *-(á)j^h
- (404) PM *-ej^h ‘APPL:DISTAL’ > Mk -ij • Ni -ej • PCh *-ej^h • PW *-ej^h
- (405) PM *-sáq’ál^h, *-sáq’ál-its ‘soul, spirit’ > Mk (?) -si^onq’al (-its) • Ni -sák’ák<it> • PCh *-sáq’ál^h, *-sáq’ál-is

8.1.1.13 Other consonant clusters

Word-initially, multiple consonant clusters – such as PM **φk*, **φts*, **tk*, **wk*, **kt*, **kφ*, **sl*, **tl* – undergo vowel insertion in Chorote. Most of them are broken by a *^o (compare this to the evolution of PM syllabic consonants, described in §8.1.1.11), but after **k* (possibly articulated as [ḳ]; §8.1.1.2) an **i* is inserted instead. Unexpectedly, an inserted **i* – rather than **^o – is also seen in (408). (407) is also an exception; in this example, the word-initial consonant is altogether lost. The status of PCh *^o is discussed in §8.1.2.6.

- (406) PM **φkéna*(^o)χ ‘north wind, north’ > Ni *φtfenax* • PCh **hw^okénah*
- (407) PM **φtsána*(^o)χ ‘suncho (*Baccharis sp.*)’ > Ni *φtsánax* • PCh **sánah* • PW **x^witsánaχ*
- (408) PM **φts-u^ok* ‘palm (*Copernicia alba*)’ > Mk *fits-uk* • Ni *φts-u^ok* • PCh **hwis<úk>* • PW **x^wits<uk^w>*
- (409) PM **kφá*(*t*)s^oi(?) ‘Molina’s hog-nosed skunk’ > Ni *kxats^oi* • PCh **k^oh-wáts^oi?*
- (410) PM **ktá^onih* ‘Chaco tortoise’ > PCh **kitá^onih* • PW **k^otá^onih*
- (411) PM **ktéta*(?) ~ **ktáta*(?) ‘white algarrobo fruit (*Prosopis elata*)’ > PCh **kitéta?* • PW **k^otéta*
- (412) PM **sláqha*(^o)j, **sláqhaj-its* ‘wild cat’ > Ni *flákaxaj* ~ *sklákaxaj* (-is) • PCh **s^oláhqaj?* ~ **s^oláhqáj?* (*-is) • PW **siláqháj*
- (413) PM **tkéna*(^o)X₁₂ ~ **tkána*(^o)X₁₂, **tkén*X₁₃a-ts ~ **tkán*X₁₃a-ts ‘precipice; hill, mountain’ > PCh **t^okénah*, **t^okéhna-s* • PW **tk^oénaχ*, **tk^oénha-s*
- (414) PM **tlú^ok* ‘blind’ > Ni *taklú^ok* • PCh **t^olúk* • PW **tilúk^w*
- (415) PM **wkína*(^o)X₁₂, **wkín*X₁₃a-ts ‘metal’ > PCh **w^okínah*, **w^okínha-s* • PW **k^oínaχ*, **k^oínha-ts*

In the same position, the Proto-Mataguyan onset **st* receives a prothetic *^o in Proto-Chorote.

- (416) PM **sténi(?)* ‘white quebracho’ > Mk *sitin-uʔk* • PCh **ʔsténi?* • PW **ʔistéʔnih*
- (417) PM **stwúʔn*, **stwún-its* ‘king vulture’ > Ni *staβuʔn*, *staβun-is* • PCh **ʔstúuʔn*, **ʔstúun-is* • PW **ʔistíwin*
- (418) PM **stá-ʔq* ‘toothpick cactus (*Stetsonia coryne*)’ > PCh **ʔstá-k* • PW **ʔistá-q*
- (419) PM **stáʔe(?)* ‘Chaco chachalaca’ > PCh **ʔstáhwe?* • PW **ʔistáxʷe*

PM **l* is lost before another consonant in Chorote if the cluster occurs word-initially.

- (420) PM **(-)lká(?)t* ‘nasal mucus, cold’ > Mk *-leke(?)t* • PCh **két* • PW **kʰét-taχ*, **kʰét-ta-s*
- (421) PM **lkéte* ‘squash’ > Mk *lekiti* • PCh **kéte?*

The cluster PM **kφ* changed to PCh **kw*, which yields Ijw *kʰ* and Iʷw/Mj *k* (see §8.2.2.3). Similarly, the cluster **kφʷ* changed to PCh **kʷ* or possibly **kʰ*.

- (422) PM **[j]ékφaʔx* ‘to bite’ > Mk *[j]ikfeʔx* • PCh **[j]ókwah* • PW **[j]ókʷaχ*
- (423) PM **[ji]kφʰäs* ~ *[ji]kφʰäs* ‘to be torn open’ > Ni *[ji]kʰas-APPL* • PCh **[ʔi]kʰ(w)ós* • PW **[hi]kʷʰés-APPL*
- (424) PM **[j]ókφe(?)t)s* ~ **[j]ókφä(?)t)s* ~ **[j]ékφe(?)t)s* ~ **[j]ékφä(?)t)s* ‘to frighten’ > PCh **[j]ókʷes* • PW **[j]ókʷes*

The Proto-Mataguayan sequences **nj* and *ʔ*nj* lose the palatal approximant in Chorote.

- (425) PM **-njiʔx* ‘smell’ > Mk *-njiʔx* • Ni *-niʔf* • PCh **-nih* • PW **-niχ*
- (426) PM *ʔ*njánxte?* ‘tapeti rabbit, cavy’ > Mk *nijaxti?* • Ni *nánxate* • PCh *ʔ*náhâte?* • PW **xnáte*

Word-medially, vowel insertion is possibly found in the cluster PM **tsn* > PCh **sVn*.

- (427) PM **tátsna(?)X₁₂* ~ **tátsne(?)χ* ‘toad’ > PCh **tásVnah* • PW **tátnaχ*

PM **φ*, **n*, **q*, **w*, and *ʔ*w* are lost before another consonant in the word-medial position. In the cluster **qk*, the loss of **q* induces a compensatory doubling of the preceding vowel.

- (428) PM **-φqató* (**-l*) ‘elbow’ > Ni *-(ʔV)φkato* (*-k*) • PCh **-qató?* (**-l*) • PW **-qáto* (**-l^h*)
- (429) PM **(-)háqke?* ‘well’ > Mk *haqqi?* ‘river’ • Ni *-xáke* ‘dry well’ • PCh **-hááke?* ‘artificial well’
- (430) PM **ʔnjánxte?* ‘tapeti rabbit, cavy’ > Mk *nijaxti?* • Ni *nánxate* • PCh **ʔnáháte?* • PW **x^hnáte*
- (431) PM **-jáqsi?* ~ **-jáqsi?* ‘finger’ > Mk *-jaqsi?* • PCh **-<ʔi>jási-ke?* ~ **-<ʔi>jási-ke?*
- (432) PM **-ʔwłi?* ~ **-ʔwłi?*, **-ʔwłi-ts* ‘rib’ > Mk *-ʔweli?* (*-ts*) • Ni *-ʔβłi / -βłi?* (*-s*) • PCh **-hlí<s>*
- (433) PM **-w(t)s'é* (**-l*) ‘belly’ > Ni *-βts'e* (*-k*) • PCh **-ts'é?* (**-l*) • PW **-ts'é* (**-l^h*)

Clusters with a PM guttural fricative followed by another consonant lose the guttural stem-initially – as in (435), (438), (439), (437) – except in (436), where PM **Xp* yields PCh **ʔip*. Word-medially (at least before a stop), the guttural consonant yields PCh **h*, and a vowel (a copy of the preceding vowel) is inserted to break the cluster apart, as in (434), (440).

- (434) PM **ʔnjánxte?* ‘tapeti rabbit, cavy’ > Mk *nijaxti?* • Ni *nánxate* • PCh **ʔnáháte?* • PW **x^hnáte*
- (435) PM **xnáwáʔp* ‘spring’ > Mk *xinawaʔp* • Ni *fnaβâp* ~ *fnâβâp* • PCh **náwop* • PW **x^hnáwop*
- (436) PM **xpáʔk* ~ **xpáʔk* ‘straw’ > Mk *xupa(?)k* ~ *xupek* • Ni *xpáʔk* • PCh **ʔipák*
- (437) PM **Xmáwoh* ‘fox’ > PCh **máwo-tah* • PW **x^hmáwoh*
- (438) PM **(-)X₂₃pél* ‘shadow’ > Ni *xpek* • PCh **-pél* • PW **hpél^h* / **-hpe^h*
- (439) PM **X₂₃wéʔlah*, **X₂₃wéʔla-ts* ‘moon’ > Ni *xibeʔla* (*-s*) • PCh **wéʔlah*, **wéʔla-s* • PW **x^hwéʔlah*
- (440) PM **-ʔáX₂₃te(?)* (**-j^h*) ‘female breast’ > Ni *-ʔaxte* (*-j*) • PCh **-ʔáhate?* (**-j^h*) • PW **-t-ʔáte* (**-j^h*)

The clusters PM **sʔw* and **stw*, which are only found before PM **u*, yield PCh **sʔ?* and **ʔstV*, respectively.

- (441) PM **stwúʔn*, **stwún-its* ‘king vulture’ > Ni *staβuʔn*, *staβun-is* • PCh **ʔstúuʔn*, **ʔstúun-is* • PW **ʔistíwin*

- (442) PM *s'wúla'χ, *s'wúla-ts 'anteater' > Ni s'βuklax, sβuklā-s • PCh *s'úlah, *s'úla-s • PW *súlaχ
- (443) PM *[ji]s'wun ~ *[ji]s'wún 'to like, to love' > Mk [ji]su?un • Ni [ji]s'βun • PCh *[i]s'ún

The clusters PM *l? – as in (445) – and *m? – as in (444) – are apparently retained in the environment *...h#. Otherwise the glottal stop is lost, as in (446)–(447).

- (444) PM *ǵámǵáh, *ǵámǵá-ts 'rat' > Ni ǵamǵá (-s) • PCh *ǵámǵah ~ *ǵámǵáh, *ǵámǵa-s ~ *ǵámǵá-s • PW *ǵáma
- (445) PM *ǵúlǵáh, *ǵúlǵá-ts 'dove' > Ni ǵuklǵá (-s) • PCh *ǵúlǵáh, *ǵúlǵá-s
- (446) PM *-ǵálǵu? (*-ts) 'son-in-law, brother-in-law' > Mk -ǵelu? (-ts) • Ni -ǵaklǵu (-s) 'brother-in-law' • PCh *-hwílu? [?] -hwélu? (*-s) 'son-in-law'
- (447) PM *túmǵa 'day' > Ni tǵumǵa- • PCh *hlúma?

Finally, a few clusters are retained in the medial position without any special change. These include *lφ, *lts, *sk'.

- (448) PM *-k'álφah 'spouse' > Ni -tǵ'akφa • PCh *-k'élhwah • PW *-k'í'éx^wah
- (449) PM *níltsa(?)X₁₂, *níltsX₁₃a-ts 'white-lipped peccary' > PCh *<?ih>nílsah, *<?ih>nílsa-s • PW *nílsaχ, *níltsa-s
- (450) PM *ǵásk'ála(?)χ 'widower' > Ni ǵástǵ'aklax • PCh *ǵásk'élah

8.1.2 Vowels

Chorote shows more or less the same reflexes of PM vowels as Wichí: most vowels are preserved intact except for PM *ä, which merges with *e or, if an accented syllable follows (§8.1.2.1), with *i. Three minor innovations shared with Wichí are the lowering of *e to *a before a *χ in the coda position (§8.1.2.2; also shared with Maká), the lowering of *i to *e in the environment *At/x...ts (§8.1.2.3) and to *a in the environment *#?...C'Á (§8.1.2.4), and the rounding of *e before the clusters *kw (§8.1.2.5).

8.1.2.1 Reflexes of PM *ä

The default reflex of PM *ä in Chorote is PCh *e. An irregular reflex is seen in (461). The reflex PCh *i in (459), as opposed to *e in (458), is due to harmonic rising

triggered by the following *u, a process that might be regular in the environment *W_Lu, where W stands for a labial and L for a coronal. Compare PCh **-pél* ‘shadow’, but Mj *-péilik* ‘shadow’ < **-píl-uk*; PM **φ’elxVtsé-ts* ‘poor’, but PCh **p’ihlusé-s* ‘poor’.

- (451) PM **[j]áp’ä(°)t* ~ **[j]áφ’ä(°)t* ‘to burn’ > Ni *[j]ap’at* • PCh **[j]áp’et* • PW **[j]áp’et*
- (452) PM **-äφ*, **-φä-ts* ‘wing’ > Mk 3 *t-ef*, *t-e-fe-ts* • Ni *-aφ*, *-<a>φa-s* • PCh **-hw<és>* • PW **-t-ex^w*
- (453) PM **-ä’j*, **-äj-is* ‘yica bag’ > Ni *-a’j*, *-aj-is* • PCh **-éj?* (**-is*) • PW **-t-éj* (**-is*)
- (454) PM **t-äk* ‘you go away’ > PCh **hl-ék* • PW **t-eg*
- (455) PM **[j]än* ‘to put’ > Mk *[j]en-APPL* • Ni *[j]an* • PCh **[j]én* • PW **[j]én*
- (456) PM **[ji]φá’já* [?] ~ **φá’já* ‘to fly’ > Ni *[ji]φá’já* • PCh **[ʔi]hwé’já?* • PW **x^we’já* [?] ~ **w-* [?] **-i-*
- (457) PM **[ji]φäl* ‘to tell’ > Mk *n(i)-fel-im* • Ni *n(i)-φak* / *n(i)-φakl-* • PCh **[ʔi]hwél* • PW **[ʔi]x^wél^b* / **[ʔi]x^wél-*
- (458) PM **-φälits* ‘daughter-in-law, sister-in-law’ > Mk *-felits* • Ni *-φaklīs<?a>* ‘sister-in-law’ • PCh **-hwélis* ‘daughter-in-law’
- (459) PM **-φälʔu?* (**-ts*) ‘son-in-law, brother-in-law’ > Mk *-felu?* (*-ts*) • Ni *-φaklʔu* (*-s*) ‘brother-in-law’ • PCh **-hwílu?* [?] *-hwélu?* (**-s*) ‘son-in-law’
- (460) PM **φá’x* ~ **φá’x* ‘field’ > Ni *φa’f* • PCh **hwéh*
- (461) PM **(-)*φétá’*ts* ‘root’ > Mk *fitets* • Ni *-φeta’s* • PCh **-hwétus* • PW **(-)*x^wétes
- (462) PM **φi’jät* ‘cold weather, south wind’ > Ni *φi’jat* • PCh **hwi’jét* • PW **x^wi’jét*
- (463) PM **-φítä(°)k* ‘dream’ > PCh **-hwíhlek* • PW **-x^wítetq*
- (464) PM **φínä(°)χ* ‘crab’ > Ni *φinax* • PCh **hwíneh*
- (465) PM **[ji]φχän-* ~ **[ji]φχän-* ‘to kill a bird’ > Ni *[ji]φxan-APPL* • PCh **<?a>hwén-(n)ah* ‘bird’ • PW **<?a>x^wén-k’ē* ‘bird’
- (466) PM **kowä’x* / **-kówä’x* ‘hole’ > PCh **kowéh* / **-kóweh* • PW **k’owex* / **-k’óweχ*
- (467) PM **-k’älφah* ‘spouse’ > Ni *-t’akφa* • PCh **-k’élhwah* • PW **-k’*éx^wah
- (468) PM **[ji]k’än* ‘to stretch out’ > Ni *[ji]t’an* • PCh **[ʔi]k’én-APPL* • PW **[hi]k’én*

- (469) PM *[ji]k'ása'χ ~ *[ji]k'áse'χ 'to divide' > Mk [j]<a>k'esa'χ • PCh *[ʔi]k'ésah • PW *[hi]k'ésaχ
- (470) PM *látseni(?) 'chañar fruit' > PCh *létseni? • PW *létse'nih
- (471) PM *látsen-u'k 'chañar plant' > Mk <xu>letsin-u'k • PCh *léseni-k • PW *létsen-uk^w
- (472) PM *(-)lká(?)t 'nasal mucus, cold' > Mk -leke(?)t • PCh *két • PW *k'éł-taχ, *k'éł-ta-s
- (473) PM *^ʔlájX₂₃VnâX₁₃â 'Azara's night monkey' > Ni klajxenâxâ • PCh *^ʔléhjanâhá-ke?
- (474) PM *mät 'hither, nearby' > Mk met 'nearby' • PCh *mét 'hither'
- (475) PM *[ji]nxi'wän 'to smell' > Mk [ji]nxi'wen • PCh *[ʔi]hni'wen
- (476) PM *pútäh 'tapeti rabbit' > Ni puta • PCh *púteh
- (477) PM *[ni]-táφä(?)l-APPL 'to know, to be acquainted' > Ni [ni]táφäkl-APPL • PCh *[ʔi]táhwel-APPL • PW *-táx^wel-APPL / *-táx^wnh-APPL
- (478) PM *-táwä'x, *-táwxä-ts '(abdominal) cavity' > Mk -tawé'x, -tawxe-ts • Ni -täβa'f, -täβxa-s • PCh *-tóweh • PW *-tóweχ
- (479) PM *-tä(?)ts, *-täts-él 'trunk, base' > PCh *-tés (*-el) • PW *-tes, *-tét-s-el^h
- (480) PM *-täts-u'k, *-täts-ku-j^h 'trunk' > Ni -tats-uk, -tas-ku-j • PCh *(-)tés-uk, *-tés-ku-j^h
- (481) PM *-témä(?)k ~ *-tämä(?)k, *-témh-aj^h ~ *-támh-aj^h 'bile' > PCh *-témek, *-témh-aj^h • PW *-témeq, *-témh-aj^h
- (482) PM *wäk 'all' > Mk we:k • Ni -βatf • PCh *-wek • PW *-weq
- (483) PM *-wä'x, *-w(ä)x-áj^h 'burrow; anus' > Ni -βa'f, -βaf-aj^h • PCh *-wéh • PW *-wéχ, -wh-áj^h
- (484) PM *^ʔwäle'k 'to walk' > Mk -<i>welki-^ʔmet 'to limp' • Ni βaklé'tf • PCh *[ʔi]^ʔwélek • PW *^ʔweleq
- (485) PM *[ji]^ʔwän 'to see' > Mk [ji]^ʔwen • Ni [ji]^ʔβan • PCh *[ʔi]^ʔwén • PW *[hi]^ʔwén
- (486) PM *-^ʔwät 'place' > Mk -^ʔwet • Ni -^ʔbat • PCh *-^ʔwét • PW *-^ʔwet
- (487) PM *-xäjk'u(?) (*-l) 'egg' > Ni -fajk'u (-k) • PCh 3 *hl-éjk'u? (*-l) • PW *-ł-ík^j'u (*-l^h)
- (488) PM *-xä'n(e?) 'verbal plural (suffix)' > Ni -fa'ne?/-xa'ne? • PCh *-he'n(e?) • PW *-he'n

- (489) PM **-xáteʔk*, **-xáthe-j^h* ‘head’ > Ni *-fateʔtf*, *-fatxe-s* • PCh **-hétek*, **-héhte-j^h* • PW **-t-éteq*, **-t-éthe-j^h*

The regular reflex in Chorote seems to be **i* rather than **e* if an accented syllable follows. (490) further suggests that it is the position of the accent in PM (as opposed to PCh) that matters.

- (490) PM **pátóχ* ‘to be deep’ > Ni *[ʔa]patoχ* • PCh **-pítohw<ijʔ>* • PW **pitóχ^w*
 (491) PM **tánúk* (**-its*) ‘feline’ > Mk *tenuk* (*-its*) • Ni *tanuk* (*-is*) • PCh **tinúk* (**-is*)
 (492) PM **tsänúʔk* ‘duraznillo trees’ > Ni *tsanuʔk* • PCh **sinúk* • PW **tsinúk^w*
 (493) PM **-ʔäsχaʔn*, **-ʔäsχán-its* ‘meat’ > Mk *-ʔeseʔn*, *-ʔesen-its* • Ni *-(ʔa)sxaʔn*, *-(ʔa)sxan-is* • PCh **-ʔisáʔn*, **-ʔisán-is* • PW **-t-ʔisaʔn*, **-t-ʔisán-is*

8.1.2.2 Lowering of **e* before **χ*

Before the uvular fricative **χ*, PM **e* has a special lowered reflex, PCh **a*. This is shared with Maká (§6.2.1.4) and Wichí (§9.1.2.2).

- (494) PM **[j]áte(ʔ)χ* ‘to be fat’ > Ni *[j]átex* • PCh **[j]átah* • PW **[j]átaχ*
 (495) PM **pátséχ* ‘jabiru’ > Ni *pátsex* • PCh **pátsáh* • PW **pátsáχ*
 (496) PM **pátse(ʔ)χ* ‘fast, quick’ > Ni *pátsex* • PCh **(-)pásah*
 (497) PM **(-)tútse(ʔ)χ* ‘smoke’ > PCh **(-)túsah* • PW **(-)túsaχ*
 (498) PM **tséχ-APPL* ‘full (river)’ > Ni *tsex-APPL* • PCh **-sáh* • PW **tsáχ-APPL*
 (499) PM **ʔáwu(C)tseχ* ‘peccary’ > Ni *ʔaβuktsex* ~ *ʔaβoktsex* • PCh **ʔáwusah* • PW **ʔáwutsaχ*
 (500) PM **ʔáʔjteχ*, **ʔáʔjte-ts* ‘to hurt’ > Mk *aʔtaχ*, *aʔti-ts* • Ni *ʔáʔjtex* ~ *ʔáʔβtex* • PCh **ʔáʔjʔtah-APPL*, **-ʔáʔjʔte-s-APPL* • PW **ʔáʔjaχ*, **ʔáʔjte-s*
 (501) PM **ʔál(V)tse(ʔ)χ*, **ʔál(V)tse-ts* ‘cháguar (*Deinacanthon urbanianum*)’ > Ni *ʔáktsex*, *ʔáktse-s* • PCh **ʔálʔsah*, **ʔálʔse-s* • PW **ʔáletsaχ*
 (502) PM **ʔánhajeχ* ‘wild bean (*Capparis retusa*)’ > Mk *anhajaχ* • Ni *ʔánxajex* • PCh **ʔóhnajah* • PW **ʔánhjaχ*
 (503) PM **ʔaX₁₃áje(ʔ)χ* ‘mistol fruit’ > Ni *ʔaxájex* • PCh **ʔahájah* • PW **ʔahájjaχ*
 (504) PM **ʔuwáte(ʔ)χ* [?] **Cʔuwáte(ʔ)χ* ‘puma’ > Ni *<xum>pʔubaʔex* • PCh **kʔuwáhlah* • PW **ʔowátaχ* [?] **Cʔowátaχ*

The lowering induced by the uvular fricative left behind a synchronically active alternation in Chorote. In forms that go back to PM etyma with a $*\chi$, the lowering applies, and one finds PCh $*a$. By contrast, the reflexes of PM forms derived from the vocalic stems of the same etyma (see §5.2.2) show no lowering, because PM $*\chi$ was absent in the respective protoforms. Consequently, one finds PCh $*e$, raised to i in the unstressed position in the contemporary varieties.

- (505) Iyojwa'aja' (Drayson 2009: 96, 143, 144)
- pánsa* /pánsah/ 'fast, quick.SG' → *pánsi-s* /pánsi-s/ 'fast, quick.PL'
 - p'élis'e* /p'ílusah/ 'poor.SG' → *p'ihl'úxsi-s* /p'ílúsi-s/ 'poor.PL'
 - ʔáʔt'eh-e?* /ʔáʔtah-hi(j)/ 'it hurts' → *ʔáʔti-s-i?* /ʔáʔti-s-hi(j)/ 'they hurt'
- (506) Iyo'awujwa' (Gerzenstein 1983: 120, 166)
- álisha* /ʔál'sah/ 'cháguar.SG' → *álishi-s* /ʔál'si-s/ 'cháguar.PL'
 - tóxxa* /túsah/ 'smoke.SG' → *tóxxi-s* /túsi-s/ 'smoke.PL'
- (507) Manjui (Carol 2018)
- p'ilisáh* /p'ilVsáh/ 'poor.SG' → *p'ilisé-s* /p'ilVsé-s/ 'poor.PL'

8.1.2.3 Lowering of $*i$ in the environment $*At/x...ts$

In Chorote, PM $*i$ lowers to $*e$ before $*ts$, provided that there is a low vowel ($*a$ or $*á$) in the preceding syllable. This most regularly happens when the syllable has $*t$ as the onset, but one example with PM $*x$ > PCh $*h$ has also been identified. As a consequence, the nominal plural suffix $*-is$ shows the allomorph $*-es$ in Proto-Chorote, an alternation best described as an instance of progressive height harmony. This innovation is shared with Wichí (§9.1.2.3); in addition, a similar process operates dialectally in Nivaçle (§7.2.6).

- (508) PM $*-át-its$ 'drink.PL' > Ni $-át-is$ • PCh $*-át-es$
- (509) PM $*jinát-its$ 'water.PL' > Ni $jinát-is$ • PCh $*ʔi'nát-es$ • PW $*ʔinát-es$
- (510) PM $*qati'ts$, $*qatits-él$ 'star' > Ni $kati's$ • PCh $*qatés$, $*qates-él$ • PW $*qates$, $*qatés-el^h$
- (511) PM $*...X_{23}a't-its$ 'earth.PL' > Ni $<kots>xat-is$ • PCh $*<ʔa>h<n>át-es$ ~ $*<ʔá>h<n>át-es$ • PW $*<hon>hat-es$
- (512) PM $*-ʔáx-íts$ 'skins, barks' > Mk $-ʔax-its$ • Ni $-ʔáx-is$ • PCh $*-ʔáh-és$ • PW $*-t-áh-és$

8.1.2.4 Lowering of *i before glottalized consonants followed by a low vowel

We have already seen that the sequence PM *ji changed to *ʔi word-initially in Proto-Chorote (§8.1.1.5). However, when followed by a glottalized consonant and a low vowel (PM *a or *á, but not *ä), the vowel *i was lowered, yielding *ʔa. The development PM *ji > *ʔi > *ʔa in this environment is shared with Wichí (§9.1.2.4).

(513) PM *jiʔjáʔX₁₂ ‘jaguar’ > Ni jiʔjáʔx • PCh *ʔaʔjáʔh • PW *haʔjáʔx

(514) PM *jiʔláʔ, *jiʔláʔ-jʰ ‘tree’ > Ni jiʔkláʔ(-j) • PCh *ʔaʔláʔ(*-jʰ) • PW *haʔlá, *haʔláʔ-jʰ

(515) PM *jitʔáʔ, *jitʔáʔ-l ‘vulture’ > Ni jitʔáʔ(-k) • PCh *ʔatʔáʔ(*-l) • PW *hatʔáʔ(?)

8.1.2.5 Rounding of vowels next to *k(ʷ)

In two examples, accented PM *é and *á appear to have acquired rounding in Chorote next to *kw (from PM *kɸ) or *kʷ(w) (from PM *kɸʷ).

(516) PM *[j]ékɸaʔx ‘to bite’ > Mk [j]ikfeʔx • PCh *[j]ókwah • PW *[j]ókʷaʔx

(517) PM *[ji]kɸʔás ~ [ji]kɸʔás ‘to be torn open’ > Ni [ji]kʷas-APPL • PCh *ʔi]kʷ(w)ós • PW *[hi]kʷʔés-APPL

Unaccented instances of *e remained unaffected in Proto-Chorote. However, in the only known example vowel rounding is seen in the Iyojwa’aja’ variety, as shown in (901) below.

(518) PM *[j]ókɸe(ʔ)(t)s ~ *[j]ókɸä(ʔ)(t)s ~ *[j]ékɸe(ʔ)(t)s ~ *[j]ékɸä(ʔ)(t)s ‘to frighten’ > PCh *[j]ókʷes • PW *[j]ókʷes

8.1.2.6 The emergence of Proto-Chorote *ə

The insertion of an intrusive *ə in certain consonant clusters (§8.1.1.13) and the decomposition of syllabic consonants into sequences of the type *Cə (§8.1.1.11) is shared by all Chorote varieties and must have been complete by the Proto-Chorote stage. All Chorote varieties have since merged *ə with other vowels, especially *i (§8.2.3.4), but this latter merger took place independently in the varieties of Chorote: PCh *ə differs from PCh *i in not constituting the environment for the first palatalization (§8.2.1.1). However, the reflexes of both sounds did feed the second palatalization, which occurred in Iyojwa’aja’ and, with some restrictions, in Manjui (§8.2.1.2).

In Hall's (2006) typology of inserted vowels, PCh $*\text{ə}$ is probably better characterized as an intrusive vowel rather than as a full-fledged epenthetic segment: its quality does not match any other vowel phoneme already present in the inventory, and it typically occurs in heterorganic clusters. Its only property untypical of intrusive vowels is that its main function is that of repairing illicit structures. It is therefore quite possible that PCh $*\text{ə}$ was absent from the phonological representations of Proto-Chorote forms, as in $*/\text{wkínah}/$ (likely pronunciation: $*[\text{wə́kínah}]$) 'metal'. However, in the contemporary Chorote lects its reflexes are clearly segmental, which is in any case a common fate of erstwhile intrusive vowels in many languages (Hall 2006: 422–424).

It is difficult to reconstruct the exact phonetic realization of the intrusive vowel symbolized as $*\text{ə}$ here; possible values include $[\text{i}]$, $[\text{ə}]$, and $[\text{ɪ}]$. It was certainly distinct from PCh $*\text{e}$ (which also sometimes yields $[\text{i}]$ in the modern varieties), since the sound change PCh $*\text{e} >$ modern Chorote $[\text{i}]$ fed the first palatalization, as in PCh $*\text{ʔa-selán-eh}$ 'I prepare, I make' $>$ I'w $a\text{-sil'én-e}$ 'id'.

8.1.2.7 Other vowel changes

There are some cases of PM $*\text{a} >$ PCh $*\text{o}$ in the environment $*_k(\text{'})\text{ó}$.

(519) PM $*\text{-pák'ó}$ 'heel' $>$ PCh $*\text{-pók'óʔ}$ • PW $*\text{-pák}^{\text{j'ó}}$

(520) PM $*\text{-t(á)koʔ} (*\text{-l})$ 'face' $>$ Mk $\text{-tko} < \text{jek} >$ • Ni $\text{-takoʔ} (-k)$ • PCh $*\text{-tókoʔ} (*\text{-l})$
• PW $*\text{-ták}^{\text{j'ó}} (*\text{-l}^{\text{h}})$

(521) PM $*\text{-t(á)ko-seʔ} (*\text{-j}^{\text{h}})$ 'eyebrow' $>$ Mk $\text{-tko-siʔ} (*\text{-j})$ • PCh $*\text{-tóko-seʔ} (*\text{-j}^{\text{h}})$
• PW $*\text{-ták}^{\text{j'ó-se}} (*\text{-j}^{\text{h}})$

Before the plural non-human suffix $*\text{-wáʔ}$, found in demonstratives, the vowels $*\text{a}$, $*\text{á}$, and $*\text{e}$ change to $*\text{o}$, as in the forms $*\text{ko-wáʔ}$ 'those (outside the speaker's sight)', $*\text{no-wáʔ}$ 'these (outside one's hands' reach)', $*\text{'no-wáʔ}$ 'these (within one's hands' reach)', $*\text{po-wáʔ}$ 'those (outside the speaker's sight and never seen before)', $*\text{so-wáʔ}$ 'those (within the speaker's sight)' (compare the masculine singular forms $*\text{káʔ}$, $*\text{náʔ}$, $*\text{'náʔ}$, $*\text{páʔ} \sim *páʔ$, $*\text{séʔ}$). In the form $*\text{há-wáʔ} \sim *há-wáʔ$ 'those (outside the speaker's sight but seen before)', the rounding of the vowel is perhaps prevented by the preceding glottal fricative (in the Manjui variety this form has subsequently changed to $ho\text{-wa}$, thus eliminating the irregularity).

8.1.3 Word-level prosody

Chorote has contrastive stress. In our proposal, Iyo'awujwa' and Manjui are conservative with regard to the position of the stress, whereas Iyojwa'aja' underwent stress retraction in some cases, as will be shown in §8.2.4. Synchronically, the stress of any given Chorote word form can be determined based on the accentual properties of individual morphemes as follows. The leftmost underlying accent is the one that appears in the surface realization, whereas all subsequent accents are deleted. If no morpheme in a given Chorote word contains an underlying accent, a default accent is inserted in the peninitial syllable (or in the only syllable in the case of monosyllabic words). In the Manjui examples in (522), the underlying accents are indicated by an acute, and the surface accent is shown by means of the IPA symbol [ˈ] in the phonetic transcriptions.⁸ The lowering of the pretonic vowel in (522d) is not a productive process (see also §8.2.3.9).

(522) Manjui (Carol 2018, Hunt 1994)

- a. /hl-úp-ís/ [ˈhlʊpɪs]
3.POSS-nest-PL
'its nests'
- b. /tós-ís/ [ˈtɔxʃɪs]
snake-PL
'snakes'
- c. /túsah/ [ˈtʊxsa]
smoke
'smoke'
- d. /ʔis-ís/ [ʔaxˈseɪs]
good-PL
'they are good'
- e. /hup-ájh/ [huˈpajh]
maize-PL
'grass'

⁸A note is due on the realization of the prefixes in the examples below. The prefixes /i-/ , /hl-/ , /s-/ , /Vn-/ take moraic allomorphs (ʔi- , hi- , fi- , ʔin-) before supraglottal consonants; non-moraic allomorphs (ʔj- , tˀ... , tsˀ... , ʔn-) before /ʔ/; and maintain the underlying moraicity distinction before /h/ (as ʔi- , hl- , s- , ʔin-). Before vowels, /i-/ , /hl-/ , and /s-/ take non-moraic allomorphs (j- , hl- , s-), and /Vn-/ remains moraic (ʔin-).

- f. /i-k¹oj/ [ʔix'foj]
1SG.POSS-hand
'my hand'
- g. /kihwijh/ [ki'hwijh]
below
'inside, below, beneath'
- h. /k¹oweh/ [k¹o'wɛh]
hole
'burrow'
- i. /hl-túсах/ [hi't¹uxsa]
3.POSS-smoke
'its smoke'
- j. /Vn-láhwah-ájh/ [ʔin'lahwaaj]
GNR-pet-PL
'one's pets'
- k. /Vn-k¹oj-ájh/ [ʔinki'jejh]
GNR-hand-PL
'one's hands'
- l. /Vn-³lih-ájh/ [ʔinʔla'hajh]
GNR-language-PL
'one's words'
- m. /s-kihwijh/ [ʃi'keihwi]
1PL-below
'inside us, below us, beneath us'
- n. /hl-k¹oweh/ [hi'k¹owe]
3.POSS-hole
'her/his abdomen'

We propose that the Chorote stress straightforwardly continues the accent of Proto-Mataguyan with minor changes, and that the underlying accentual properties of specific morphemes were also inherited from PM. The accented vowels of Proto-Mataguyan are normally reflected as stressed in Chorote, and the unaccented ones as unstressed. As discussed in Chapter 4, already in Proto-Mataguyan only the leftmost underlying accent in any given word made it to the surface, whereas all subsequent underlying accents were eliminated; this rule is still active in (Proto-)Chorote. In addition, as shown in §4.3.2, Proto-Mataguyan

had a rule whereby a default peninitial accent is inserted in words without an underlying accent within the trisyllabic window at the left edge: $\sim\sim(\dots) \rightarrow \sim\sim(\dots)$. This rule has extended its operation to shorter words in (Proto-)Chorote: unlike Proto-Mataguayan, where some monosyllabic or disyllabic words (including content words) may lack an accent altogether, Chorote requires that at least one syllable in a word be stressed, with the possible exception of some grammatical elements.

The Chorote reflexes of unaccented monosyllabic words of Proto-Mataguayan receive stress on their only syllable, as shown below.

- (523) PM 1 **h-âk*, 2 **†-âk*, 3 *[*j*]ik; CISL **n-âk* ‘to go away’ > Mk 1 *h-ak*, 2 *†-ak*, 3 *ik*; CISL *n-ek* • Ni 1 *x-âk*, 2 *†-âk*, 3 [*j*]itf; CISL *n-atf* • PCh 1 *ʔâk*, 2 **hl-ék* • PW 2 **†-eq*, 3 *[*j*]iq; CISL **n-eq*
- (524) PM **-âp*, 3 *ʔ[*j*]ip ‘to cry’ > Mk *-ap*, 3 *ip* • Ni *-ap*, 3 [*j*]ip • PCh *[*j*]âp • PW *ʔ[*j*]ip
- (525) PM **†-âq* ‘its food’ > Mk *†-aq* • Ni *†-âk* • PCh **hl-âk* • PW **†-âq*
- (526) PM **†-e* ‘its thorn’ > Mk *†-i?* • Ni *†-e?* • PCh **hl-é?* • PW **†-e*
- (527) PM **tâ†* ‘to sprout’ > Mk *ta†* • Ni *tâ†* • PCh **tâ†* • PW **tâ†*
- (528) PM **tsâ(?)j* ‘spill!’ > PCh **sâj?* • PW **tsâj*
- (529) PM **xu(?)p* ‘grass’ > Mk *xup<’el>* • PCh **húp* • PW **hup*
- (530) PM **†-’a(?)q* ‘its rope, its cord’ > PCh **t-’âk* • PW **t-’aq*
- (531) PM **-’lâ(?)l*, 3 *ʔ[*j*]i(?)l ‘to die’ > PCh *ʔ[*j*]â(?)l • PW *ʔ[*j*]il^h
- (532) PM *[*t*]’âs ‘to step’ > Ni [*t*]’âs • PCh *[*t*]’âs • PW *[*t*]’âs-APPL
- (533) PM **†-’âx* ‘skin, bark’ > Mk *†-’ax* • Ni *t-’âx* • PCh **t-’âh* • PW **t-’âx*
- (534) PM **ʔis* ‘good’ > Ni *ʔis* • PCh **ʔis* • PW **ʔis*

The Chorote reflexes of unaccented disyllabic words of Proto-Mataguayan receive stress on their final syllable, as shown below.

- (535) PM **ji’jâ’X₁₂* ‘jaguar’ > Ni *ji’jâ’x* • PCh **ʔa’jâh* • PW **ha’jâx*
- (536) PM **ji’lâ?* ‘tree’ > Ni *ji’klâ?* • PCh **ʔa’lâ?* • PW **ha’lâ*
- (537) PM **ji’no* ‘man’ > PCh **ʔi’no?* • PW **hi’no*
- (538) PM **jit’â?* ‘vulture’ > Ni *jit’â?* • PCh **ʔat’â?* • PW **hat’â(?)*
- (539) PM **kowä’x* ‘hole’ > PCh **kowéh* • PW **k’owex*
- (540) PM **ntâ(?)k* ‘two’ > PCh **ntâk* • PW **nitâk^w*

- (541) PM *qatiʔts ‘star’ > Ni katiʔs • PCh *qatés • PW *qates
- (542) PM *wijeʔ ‘caraguatá (*Bromelia serra*)’ > Ni βijeʔ ~ jijeʔ • PCh *wijéʔ • PW *ʔwujeʔ(?)
- (543) PM *X₁₃on-xaʔχ ‘night’ > Ni <xon>faʔx • PCh *<ʔa>h<n>áh ~ *<ʔá>h<n>áh • PW *<hon>aχ
- (544) PM *X₁₃on-X₂₃aʔt ‘earth’ > PCh *<ʔa>h<n>át ~ *<ʔá>h<n>át • PW *<hon>hat
- (545) PM *t-ʔatáʔ(?) ‘fat’ > PCh *t-ʔahláʔ • PW *t-ʔatáʔ(?)
- (546) PM *ʔatʔeʔ(?)s ~ *ʔatʔäʔ(?)s ‘aloja drink’ > PCh *ʔatʔés • PW *hatʔés
- (547) PM *ʔatsXaʔ(?) ‘dorado’ > PCh *ʔasáʔ • PW *ʔatshaʔ(?)
- (548) PM *t-ʔäsxaʔn ‘meat’ > Mk t-ʔeseʔn • Ni t-ʔasxaʔn • PCh *t-ʔisáʔn • PW *t-ʔisaʔn

The same combination obtains when an unaccented moraic prefix is added to an unaccented monosyllabic root. The following roots typically show up with a moraic prefix:

- (549) PM *-káʔs ‘tail’ > Ni -káʔs • PCh *-káś • PW *-kʔás
- (550) PM *[ji]káʔ ‘to be torn’ > PCh *[ʔi]káʔ • PW *[ʔi]kʔáʔ
- (551) PM *-koʔ(?)j ‘hand, arm’ > Mk -koj • PCh *-kójʔ
- (552) PM *-kʔu ‘horn, club’ > Mk -kʔu • Ni -kʔuʔ • PCh *-kʔúʔ • PW *-kʔʔu
- (553) PM *-ʔliʔx ‘language, word’ > Mk -ʔlix<eʔ> • Ni -ʔkʔliʔʔ • PCh *-ʔlíh
- (554) PM *-ka ‘tool, skillful person’ > Ni -tfaʔ • PCh *-kʔáʔ • PW *-kʔa
- (555) PM *(-)ʔaʔ ‘louse’ > Mk -<ij>ʔeʔ • Ni -ʔaʔ • PCh *-hláʔ • PW *ʔaʔ
- (556) PM *-ʔuʔk ‘yica bag, load’ > Mk -ʔuk • Ni -ʔuʔk • PCh *-hlúk • PW *-ʔuk^w
- (557) PM *[ji]máʔ ‘to sleep’ > Mk [i]maʔ • Ni [ji]máʔ • PCh *[ʔi]máʔ • PW *[ʔi]máʔ
- (558) PM *-njiʔx ‘smell’ > Mk -njiʔx • Ni -niʔʔ • PCh *-nih • PW *-niχ
- (559) PM *-peʔ(?) ‘fat’ > Ni -<a>peʔ • PCh *-péʔ • PW *-peʔ(?)
- (560) PM *-pʔoʔk ~ *-pʔoʔk ‘fence’ > Ni -pʔoʔk • PCh *-pʔók • PW *-pʔok^w
- (561) PM *-pʔoʔt ‘lid’ > Mk -pʔot<oʔ> • Ni -pʔoʔt • PCh *-pʔót • PW *-pʔot
- (562) PM *-täʔ(?)ts, *-täts-él ‘trunk, base’ > PCh *-tés (*-el) • PW *-tes, *-téts-el^h
- (563) PM *[ji]tsáʔ(?)j ‘to spill’ > PCh *[ʔi]sáʔʔ • PW *[ʔi]tsáʔ

8.1 From Proto-Mataguayan to Proto-Chorote

- (564) PM *-^ʔwät ‘place’ > Mk -^ʔwet • Ni -^ʔbat • PCh *-^ʔwét • PW *-^ʔwet
 (565) PM *-^ʔwo ‘neck’ > Mk -wo<nxe?> • Ni -^ʔboʔ • PCh *-^ʔwóʔ • PW *-^ʔwo
 (566) PM *-^ʔwu(ʔ)j ‘clothes, blanket’ > PCh *-^ʔwújʔ • PW *-^ʔwuj

Most verbs that took a zero third-person realis prefix in Proto-Mataguayan underwent a morphological change in Chorote: they now take the third-person realis prefix *ʔi-. The verbs that were affected by this change are underlyingly unaccented in Proto-Mataguayan; in Chorote, they receive a default stress on the peninitial syllable.

- (567) PM *ti^ʔϕ ‘to suckle’ > Mk tu^ʔf / -tu^ʔf • Ni ti^ʔϕ • PCh *[ʔi]tím • PW *tip
 (568) PM *tim ‘to swallow’ > Mk tim-xuʔ / -tim-xuʔ • Ni tim • PCh *[ʔi]tím • PW *tim
 (569) PM *tis ‘to invite, to pay’ > Mk tis-ix / -tis-ix • Ni tis • PCh *[ʔi]tís • PW *tis
 (570) PM *ti^ʔx ‘to dig’ > Mk ti(ʔ)x-APPL / -ti(ʔ)x-APPL • Ni ti^ʔf • PCh *[ʔi]tíh-ijʔ • PW *tiχ
 (571) PM *tux ‘to eat (tr.)’ > Mk tux / -tux • Ni tux • PCh *[ʔi]túm • PW *tux^w
 (572) PM *tijá^ʔχ ‘to shoot, to throw’ > Mk tija^ʔχ / -tija^ʔχ • Ni tijá^ʔx • PCh *[ʔi]tijáh • PW *tijáχ
 (573) PM *tiłá^ʔx ‘to carry on one’s shoulders’ > Mk tiłó^ʔx / -tiłó^ʔx • Ni tiłá^ʔx • PCh *[ʔi]tíhláh • PW *tiłáχ
 (574) PM *^ʔwäle^ʔk ‘to walk’ > Mk <i>^ʔwelki-^ʔmet ‘to limp’ • Ni βaklé^ʔtf • PCh *[ʔi]^ʔwélek • PW *^ʔwelq

Chorote retains the mobile paradigms of Proto-Mataguayan to some extent. For example, underlying unaccented monosyllables retain their behavior in Chorote: when they are followed by an underlyingly accented plural suffix, the stress moves to the suffix.

- (575) Iyojwa’aja’ (Carol 2014a: 92)
 a. ʔés ‘it is good’ → ʔif-ís ‘they are good’
 b. t-’ák ‘its rope, cord’ → t-’ak-áʔ ~ t-’ak-áʔl ‘its ropes, cords’
 c. t-’áx ‘its skin’ → t-’eh-és ‘its skins’

- (576) Iyo'awujwa' (Gerzenstein 1983: 176)
 a. *hóp* 'maize' (etymologically 'grass.SG') → *hup-áj* 'grass'
 (etymologically 'grass.PL')
- (577) Manjui (Carol 2018)
 a. *hóp* 'maize.SG' → *hup-ájh* 'maize.PL, grass'
 b. *ʔéis* 'it is good' → *ʔas-éis* 'they are good'

This differs from the behavior of underlyingly accented monosyllables, which keep their stress even when followed by an underlyingly accented plural suffix.

- (578) Iyojwa'aja' (Drayson 2009: 131, 132)
 a. *hl-éʔ* 'her/his/its name' → *hl-éj-is* 'her/his/its names'
 b. *hl-óp* 'its nest' → *hl-óp-is* 'its nests'
- (579) Iyo'awujwa' (Gerzenstein 1983: 125, 176, 176, 183)
 a. *-éj* 'yica bag' → *-éj-is* 'yica bags'
 b. *hl-úp* 'its nest' → *hl-úp-is* 'its nests'
 c. *hók* 'palo santo tree' → *hók-iʔ* 'palo santo trees'
 d. *tóxs* 'snake' → *tóxs-is* 'snakes'
- (580) Manjui (Carol 2018)
 a. *-át* 'drink.SG' → *-át-es* 'drink.PL'
 b. *-éjʔ* 'name' → *-éj-is* 'names'
 c. *-éjʔ* 'yica bag' → *-éj-is* 'yica bags'
 d. *ʔmók* 'zorzal bird' → *ʔmók-is* 'zorzal birds'
 e. *hók* 'palo santo tree' → *hók-éj* 'palo santo trees'
 f. *hót* 'sand.SG (small quantity of sand)' → *hót-éj* 'sand.PL (large patch of sand)'
 g. *hl-óp* 'its nest' → *hl-óp-is* 'its nests'
 h. *tós* 'snake' → *tóxf-is* 'snakes'

Chorote also retains the behavior of underlyingly unaccented disyllabic nouns and adpositions. When they occur without a prefix, they receive a default peninitial stress on their *second* syllable, as explained above. However, when a moraic prefix is added, the default peninitial stress falls on the *first* syllable of the stem.

- (581) Iyojwa'aja' (Carol 2014a: 92)
- a. *k'ijé* 'for' → *si-k'óje* 'for us'
 - b. *?apé?ε* 'above' → *si-típe?ε* 'above us'
 - c. *k'ahwéh* 'below' → *si-k'áhwe* 'below us'
- (582) Manjui (Carol 2018, Hunt 1994)
- a. *?ijé?* 'for' → *hi-?óje?* 'for her/him'
 - b. *?apé?ε?* 'above' → *hi-tépe?ε?* 'on top of it'
 - c. *kihwíjh* 'below' → *fi-kéihwi* 'below us'

In verbs, however, the pattern in question no longer occurs. Instead, fixed stem-initial stress was apparently generalized in verbs in these cases, as in PCh **qásit* 'stand up!' (compare 'Wk *qasít* 'id.').

8.2 From Proto-Chorote to the contemporary varieties

In terms of the nature of the linguistic differences, Chorote shows more dialectal diversity than any other Mataguayan language. The variety spoken by the Iyojwa'aja' people of Argentina, also known as Riverine Chorote or variety #1 (= V1), is particularly divergent, whereas all other varieties are closer to each other and are collectively referred to as Forest Chorote or variety #2 (= V2). This latter group of dialects, in turn, is subdivided into what we call Iyo'awujwa' (spoken in Argentina as well in the community of San Eugenio, located in the surroundings of Pedro P. Peña, Paraguay) and Manjui (spoken especially in Misión Santa Rosa = Wonta and Abizai). Note that the Iyo'awujwa' speakers from San Eugenio are locally known as Manjui.

Iyojwa'aja', Iyo'awujwa', and Manjui are all further subdivided into a number of subvarieties. Subdialectal variation within these varieties remains understudied, however. Gerzenstein (1978) states that the Iyojwa'aja' are divided into *Isiam jlele* 'Downriver People' and *Pijiam jlele* 'Upriver People', a claim whose linguistic validity we have been unable to confirm (perhaps due to drastic demographic changes that affected the Iyojwa'aja' people during the 20th century), though there certainly are lexical differences between subvarieties of Iyojwa'aja'. The Iyo'awujwa' were historically (before the Chaco War) subdivided into two groups, *Jla'wáj jlele* 'Lake People'⁹ and *Jwej jlele* 'Field People'; it is unclear

⁹Carol (2014b: 8) mistakenly analyzes Siffredi's (1982) attestation of this ethnonym as *Jlawá'a jlele* 'Outsiders'.

whether this division is related to the linguistic variation attested within contemporary Iyo'awujwa'. The Manjui are subdivided into *Jlimnájnas* 'Forest People' and *Jlawá'a* *Wos* 'Outsiders', which historically spoke slightly different subdialects, according to Carol (2014b: 5–8) and Hunt (1994: 5). Although nowadays descendants of both groups have settled in Santa Rosa (Wonta), and the subdialects in question have mixed to some extent in the speech of the speakers born in the 1970s or later (Carol 2018: 8), some minor lexical and phonetic differences persist (Hunt 1994, Carol forthcoming).

This section describes the phonological evolution of Iyojwa'aja', Iyo'awujwa', and Manjui.

8.2.1 Palatalization

Palatalization is a pervasive phenomenon in Chorote. It affects consonants, but only in the onset position. Most consonants palatalize by acquiring a secondary articulation, i.e., $*C > [C^j]$: $*t > [t^j]$, $*m > [m^j]$, $*l > [l^j]$, etc., a phenomenon known as SECONDARY PALATALIZATION (Bateman 2007). For others, it involves a change in the place of articulation (Bateman's (2007) FULL PALATALIZATION). This is the case with $*k^j(')$; $*s$ and $*ts'$ (except in Iyojwa'aja', where palatalization is most commonly realized as $[C^j]$); and $*w$, $*'w$, $*hw$, with some nuances (labiovelars are subject to full or secondary palatalization, depending on the environment and dialect; §8.2.1.1). As for $*h$, it becomes hj , realized as $[hj]$ or $[xj]$.

In Manjui, secondary palatalization ($[C^j]$) is often imperceptible or hardly perceptible, depending on the speaker, target, and phonological environment, as in $[ʔi'ʔn^{(j)}oʔ]$ 'man', $[ʔi'h^{(j)}oʔ]$ 'armadillo', which explains its frequent absence in Gerzenstein's (1983) transcriptions of that dialect. However, acoustic analysis shows that in most cases the secondary articulation does exist, as shown by the characteristic lowering of the second formant after the consonant (Ladefoged & Maddieson 1996: 364), although the lowering is much shorter than in Iyojwa'aja' and Iyo'awujwa'. The effects of the palatal articulation could be reflected in the following closed vowel $[o]$ (instead of the otherwise expected $[ɔ]$), even though a different explanation for the closed vowel cannot be ruled out (§8.2.3.2). In other cases, no acoustic traces of palatalization are found, as is the case for $/n/$ before $[e]$ derived from $/a/$ (§8.2.3.1): $/i-najin/ > [ʔi'nejin]$'s/he goes first'. An extensive account of the phonetic details of palatalization in Manjui is beyond the scope of the present book; see Carol (forthcoming) for details.

As a diachronic sound change, palatalization occurred at least four times in the history of the Chorote varieties. We dub these sound changes FIRST, SECOND, THIRD PALATALIZATION, and REGRESSIVE PALATALIZATION, keeping in mind that

they were not shared by the extant varieties of Chorote but rather applied independently, with slightly differing results. The first palatalization is triggered by PCh **i* or **(?)j* (and, at least in Iyo'awujwa' and Manjui, also by **e* > [i] in pretonic position). The second palatalization, which affects only coronal consonants (except /s/ and /ts'/ in Manjui) and does not apply in Iyo'awujwa', is triggered by [i]'s of different origins (including from PCh **ə*), but also by PCh **u*, PCh **hw*, and, sporadically in Manjui, by PCh **e*. The third palatalization, triggered by PCh **i*, applies only in Iyo'awujwa' and Manjui and affects PCh **q(?)*, which had been immune to the first palatalization. The regressive palatalization is a marginal phenomenon whereby /s ts'/ are palatalized to [ʃ tʃ] before an [i]; it is most common in Manjui. In what follows, we discuss in detail the first (§8.2.1.1), the second (§8.2.1.2), the third (§8.2.1.3), and the regressive (§8.2.1.4) palatalizations; the depalatalization process (§8.2.1.5); as well as cases which we cannot explain at present (§8.2.1.6).

8.2.1.1 First palatalization

The first (progressive) palatalization took place in all Chorote varieties. It affects all consonants in the onset position except **(?)j* and **q(?)*. Arguably **q* and **q'* were still phonetically uvular in Proto-Chorote (though their reflexes are sometimes articulated as velar in the daughter languages), and palatalized uvulars are much more difficult to articulate than palatalized consonants with a more front place of articulation.¹⁰ The triggers include PCh **i*, **j*, and **ʔj*, but also **e* > *i* in pretonic position, suggesting that this latter change had taken place early enough. Despite the fact that the first palatalization affected all Chorote varieties, there is evidence suggesting that it took place (or remained active) after the split of Proto-Chorote. A case in point is the lack of the first palatalization in (589) in Iyojwa'aja', where the stress retraction (§8.2.4) led the change **e* > *i*, necessary for the palatalization to occur; other dialects, where the stress retraction did not apply, do show both **e* > *i* and the first palatalization.

(583) PCh **ʔipák* 'straw' > Ijw *ʔipák* • I'w *ipék* [our normalization: *ʔipék*] • Mj

—

(584) PCh **k'ihlóʔ* 'armadillo' > Ijw *k'ihlóʔ* • I'w *ihlóʔ* [our normalization: *ʔihlóʔ*] • Mj *ʔihl(ʔ)óʔ*

(585) PCh **ʔi-hláʔm* 's/he defecates' > Ijw *ʔi-hláʔm* • I'w — • Mj *ʔi-hl(i)éʔm*

¹⁰It is fairly common for a language to have a uvular series, a palatalized series, but no palatalized uvulars, as is the case in Xong (< Hmongic < Hmong-Mien; Sposato 2021) and in Tsakhur (< Lezgif < East Caucasian; Kodzasov 1999).

- (586) PCh *ʔi-máʔ ‘s/he sleeps’ > Ijw ʔi-mʲáʔ • Iʷw — • Mj ʔi-mʲéʔ? ~ ʔi-máʔ ‘s/he camps’
- (587) PCh *ʔihnáta-k ‘tusca tree’ > Ijw ʔihnʲéta-k • Iʷw ihnʲéta-k [our normalization: ʔihnʲéta-k] • Mj ʔihnʲ(ʲ)éta-k
- (588) PCh *ʔiʲnóʔ ‘man’ > Ijw ʔiʲnʲóʔ • Iʷw inʲóʔ [our normalization: ʔiʲnʲóʔ] • Mj ʔiʲnʲ(ʲ)óʔ
- (589) PCh *-selán- ‘to prepare’ > Ijw -léxsan- • Iʷw -silʲén- • Mj -fi(l)ʲén-
- (590) PCh *-ʔelák ‘pus’ > Ijw -ʔilʲák • Iʷw — • Mj —
- (591) PCh *ʔi-nájjin ‘s/he goes first’ > Ijw ʔi-nʲáʲn • Iʷw — • Mj ʔi-néjin

PCh *w, *ʷw, and *hw palatalize to j, ʲj, and hj, respectively, before any vowel in Manjui, but only before rounded vowels in Iyojwa’aja’ (Gerzenstein 1978: 64) and Iyo’awujwa’ (Gerzenstein 1983: 44). In these varieties they yield w, ʷw, and hw before [i], but wʲ, ʷwʲ, and hwʲ before [a] and [e].

- (592) PCh *ʔi-wún ‘s/he burns’ > Ijw ʔi-júʲn • Iʷw — • Mj ʔi-jún
- (593) PCh *ʔi-ʲwén ‘s/he sees’ > Ijw ʔi-ʲwíʲn • Iʷw ʔi-ʲwín • Mj ʔi-ʲjín
- (594) PCh *ʔi-ʲwét ‘my place’ > Ijw ʔi-ʲwít • Iʷw ʔi-ʲwít • Mj ʔi-ʲjít
- (595) PCh *ʔi-ʲwút ‘s/he climbs’ > Ijw ʔi-ʲjúlh • Iʷw — • Mj ʔi-ʲjút
- (596) PCh *ʔi-hwéʲjâʔ ‘s/he flies’ > Ijw ʔi-hwíʲjaʔ • Iʷw — • Mj ʔi-hjíʲjeʔ
- (597) PCh *ʔi-hwík ‘s/he hides’ > Ijw ʔi-hwík • Iʷw — • Mj ʔi-hjík
- (598) PCh *ʔi-hwéhl-aʲm ‘s/he tells’ > Ijw ʔi-hwíhl-aʲm • Iʷw ʔi-hwíhl-aʲm • Mj ʔi-hjíhl-aʲm
- (599) PCh *ʔi-hwátsʲun-APPL ‘s/he spits’ > Ijw ʔi-hwʲétsʲʲun-APPL • Iʷw i-hjátsen-APPL [our normalization: ʔi-hwʲátsʲʲen-APPL] • Mj ʔi-hjétsʲʲan-APPL
- (600) PCh *ʔi-ʲwáâht-ij ‘s/he shakes’ > Ijw ʔi-ʲwátiʲ? • Iʷw — • Mj ʔi-ʲjéhtijʲ?
- (601) PCh *ʔi-wáqahl-CAUS ‘s/he prepares, brings up’ > Ijw ʔi-wʲákahl-anit • Iʷw — • Mj ʔi-jákahl-at
- (602) PCh *ʔi-hwán-hlih ‘s/he is one’ > Ijw ʔi-hwʲén-hli • Iʷw ʔi-hwʲén-hli • Mj ʔi-hjén-hiʲ?

PCh *s palatalizes to (x)sʲ, (h)sʲ in Iyojwa’aja’ except before [i], where one finds [(x)ʃ, (h)ʃ]. In Iyo’awujwa’ and Manjui, PCh *s palatalizes to (x)ʃ, (h)ʃ or, less frequently, to (x)sʲ, (h)sʲ. But after *(ʲ)j the outcome tʃ is found in Iyojwa’aja’, as in (605) and (606). Here PCh *ts (underlying */s/; see §8.1.1.1) goes back to PM *ts; we do not know if PM *s yields the same outcome.

- (603) PCh **hwisúk* ‘palm (*Copernicia alba*)’ > Ijw (*h*)*wis^húk* • I’w (*h*)*wis^húk* • Mj (*h*)*wifúk*
- (604) PCh **ʔis-ijʔ* ‘it is clear/transparent’ > Ijw *ʔéf-iʔ* • I’w — • Mj *ʔéixf-iʔ*
- (605) PCh **-kéjtsàs* ‘grandchildren’ > Ijw *-kítfas* • I’w — • Mj *-kíxfes*
- (606) PCh **-ʔájtsiʔ* ‘to feel disgust’ > Ijw *-ʔájtʔiʔ* • I’w *-ájsij-e* • Mj *-ʔájfi(j)ʔ*

PCh **ts*’ palatalized *ts^j*’ in Iyojwa’aja’, except before [i], where /*ts*’/ is found (typically realized as [tʃ^h] in that position due to regressive palatalization, §8.2.1.4). In Iyo’awujwa’ and Manjui, PCh **ts*’ yields *tʃ*’ and, less frequently, *ts^j*’.

- (607) PCh **ʔi-ts’ú-* ‘s/he sucks’ > Ijw *ʔi-ts^j’ú-* • I’w *ʔi-ts^j’ú-* • Mj *ʔi-tʃ^h’ú-*
- (608) PCh **ʔi-ts’éʔ* ‘my belly’ > Ijw *ʔi-ts’íʔ* ~ *ʔi-tʃ^h’íʔ* • I’w *ʔi-tʃ^h’íʔ* ~ *ʔi-ts’í* • Mj *ʔi-tʃ^h’íʔ*
- (609) PCh **ʔi-ts’át* ‘s/he/it is wet’ > Ijw *ʔi-ts^j’át* • I’w — • Mj *ʔi-tʃ^h’át*

PCh **k* and **k*’ palatalize (or rather ‘dedorsalize’) to (*x*)*s^j* ~ (*h*)*s^j* ~ (*x*)*f* ~ (*h*)*f* ~ *tʃ* and *ts^j* ~ *tʃ^h*, respectively, thus merging with PCh **s* and **ts*’ in the same environment (Gerzenstein 1983: 45). The postalveolar (or perhaps more precisely alveopalatal) allophones are typical of Manjui, but they have also been documented in Iyo’awujwa’ and Iyojwa’aja’ (especially before [i]; see §8.2.1.4).

- (610) PCh **ʔi-kúniʔ* ‘my sweat’ > Ijw *ʔi-s^j’úniʔ* • I’w *i-s^j’úniʔ* [our normalization: *ʔi-s^j’úniʔ*] • Mj —
- (611) PCh **ʔi-kéjás* ‘my grandson’ > Ijw *ʔi-síjas* • I’w *i-síjas* [our normalization: *ʔi-síjas*] • Mj *ʔi-fíjes*
- (612) PCh **ʔi-kájjuʔ* ~ *ʔi-kájjuh* ‘my back’ > Ijw *ʔi-s’áji* • I’w *i-s’áji* [our normalization: *ʔi-s’áji*] • Mj *ʔi-féjuʔ*
- (613) PCh **ʔi-k(’)ásAmAh* ‘s/he scratches’ > Ijw *ʔi-ts^j’éxsima* • I’w *i-s’éxsama* [our normalization: *ʔi-s’éxsama*] • Mj *ʔi-féxsama*
- (614) PCh **ʔi-kú’m-eʔ* ‘s/he grabs’ > Ijw *ʔi-sí’m-eʔ* • I’w *i-sí’m-eʔ* [our normalization: *ʔi-sí’m-eʔ*] • Mj *ʔi-fú’m-eʔ*
- (615) PCh **ʔi-k’úu-ah* ‘s/he listens’ > Ijw *ʔi-ts^j’ú-ji* • I’w *i-ts^j’ú-je* [our normalization: *ʔi-ts^j’ú-je*] • Mj *ʔi-tʃ^h’úuw-a*
- (616) PCh **ʔi-k’ókeʔ* ‘my waist’ > Ijw *ʔi-ts^j’óki* • I’w *i-ts^j’ókiʔ* [our normalization: *ʔi-ts^j’ókiʔ*] • Mj *ʔi-tʃ^h’ókiʔ*

- (617) PCh *ʔi-k'élhwah 'my spouse' > Ijw (?) ʔi-ts'^jémhla • I'w i-ts'^jilf^wa? [our normalization: ʔi-ts'^jílhwá] • Mj ʔi-tf'^jílhwá
- (618) PCh *ʔi-k'ésah 's/he tears' > Ijw ʔi-ts'íxsa • I'w i-ts'íxsa-ji [our normalization: ʔi-ts'íxsa-ji] • Mj ʔi-tf'íxsa-ha'm
- (619) PCh *ʔi-k'úu-^hej^h 's/he waits' > Ijw ʔi-ts'^jú-je • I'w i-ts'ú-jije [our normalization: ʔi-ts'^jú-je^h] • Mj ʔi-tf'úuw-^hej 'she listens to something distant'

After PCh *(^h)j the outcome in Iyojwa'aja' is usually *tf* (best synchronically analyzed as a realization of /s/ in that environment); in one cognate set (620), Drayson (2009: 136) documents <s> (<kijlasip>), which we take to be a graphic representation of *f*.¹¹ In Manjui and Iyo'awujwa' the outcome is *f*.

- (620) PCh *kéhla-jku-p 'fall season' > Ijw kihla-fi-p] • I'w — • Mj kihle-fe-p
- (621) PCh *péj-kej? 'to listen' > Ijw -pé-tfi? • I'w -péj-si? [our normalization: -péj-fi?] • Mj -péj-fi(j)?
- (622) PCh *ñk'á-jk-e? 'new (fem.)' > Ijw — • I'w — • Mj ʔink'^jé-jf-i?
- (623) PCh *hwa?áj-ku-^hj^h 'white algarrobo trees' > Ijw hwa?á-tfu-^l • I'w f^waáj-si-? [our normalization: hwa?áj-fi-j] • Mj hwa?áj-fi-j

The first palatalization also affected consonant clusters composed of two coronals, as well as those composed of a glottal and a supraglottal. In Iyojwa'aja' only, palatalization of *kt* after PCh **i* is also subdialectally documented, as in *jikt'^e ~ jíkta* 's/he would have left'.

8.2.1.2 Second palatalization

The second palatalization only occurs in Iyojwa'aja' and Manjui. It only affects coronal consonants (except for /s/, /ts'/ in Manjui) as well as clusters of the shape /LL/, /hL/, where *L* stands for a coronal. It is triggered by most, but not all, surface [i]'s of diverse origins (notably from PCh *^a and **u*, but not **e*), as well as by /u/ and /hw/ and, in a few cases, by stressed /e/. Iyo'awujwa' is notable for lacking the second palatalization (Gerzenstein 1983: 41–42).

In the following examples the second palatalization applies both in Iyojwa'aja' and Manjui.

- (624) PCh *h^a-túm 'you eat' > Ijw hi-t'úm • I'w hi-t'óm • Mj hi-t'^júm ~ hi-túm
- (625) PCh *s^a-tój? 'I am tall' > Ijw si-t'ó'j? • I'w fi-t'ój? • Mj fi-t'ój?

¹¹Drayson (2009) consistently uses <s> for both allophones of /s/, [s] and [ʃ].

- (626) PCh *ʔúlʔâh ‘scaled dove’ > Ijw — • I’w ólaha [our normalization: ʔólaʔa]
• Mj ʔólʔ(e)ʔe ~ ʔól(a)ʔa
- (627) PCh *sʔúlah ‘anteater’ > Ijw soʔólʔe • I’w sɔʔóla • Mj saʔóla ~ saʔólʔe
- (628) PCh *túhw-naʔa ‘eat it (later)’ > Ijw tóhw-nʔeʔe • I’w tóhw-naʔa • Mj
tóhw-nʔeʔe ~ tóhw-naʔa
- (629) PCh *ʔʰstúuʔn ‘king vulture’ > Ijw — • I’w ʔistóʔn • Mj ʔistʔúuʔn ~ ʔistʔúuʔn
- (630) PCh *ʔasétatah ~ *ʔásétatah ‘gualacate; armadillo’ > Ijw ʔasétʔeta • I’w
ʔasétata [our normalization: ʔasétata] • Mj ʔasétʔeta

In the following examples, the second palatalization applies only in Iyojwa’aja’ but not in Manjui. In (638) and (640), an Iyojwa’aja’ cognate is lacking, but if such cognates existed one would expect them to show the second palatalization.

- (631) PCh *sʔláhqajʔ ~ *sʔláhqâjʔ ‘wild cat’ > Ijw silʔákaʔ • I’w siláhkaj [our
normalization: siláhkajʔ] • Mj filáhkajʔ
- (632) PCh *hʰ-náʔ ‘her/his father’ > Ijw hi-nʔáʔ • I’w hi-náʔ • Mj hi-náʔ
- (633) PCh *kulájʔ ‘sun’ > Ijw kilʔéʔ ~ kiliʔé • I’w kiláj • Mj kilájʔ
- (634) PCh *kʔutáʔn ‘thorn’ > Ijw kʔitʔéʔn • I’w ʔitán [our normalization: ʔitáʔn] •
Mj ʔitáʔn
- (635) PCh *pʔilusáh ‘s/he is poor’ > Ijw pʔilʔúxsʔe ~ pʔélisʔe • I’w -pelíxsa • Mj
pʔilisáh
- (636) PCh *kʔusáh ‘cháguar’ > Ijw kʔisʔéh • I’w isáh [our normalization: ʔisáh] •
Mj ʔisáh
- (637) PCh *túсах ‘smoke’ > Ijw tóxsʔe • I’w tóxsa [our normalization: tóxsa] •
Mj tóxsa
- (638) PCh *hʰ-sʔún ‘you love’ > Ijw — • I’w hi-sɔʔóʔn • Mj hi-sɔʔóʔn
- (639) PCh *hʰ-sínân ‘you roast’ > Ijw hi-sínʔaʔn • I’w hi-sénʔan • Mj hi-sénʔan
- (640) PCh *ʔtsʔik ‘four’ > Ijw — • I’w — • Mj intsʔéik ~ intsʔík
- (641) PCh *hʰ-nájin ‘you go first’ > Ijw hi-nʔáʔn • I’w — • Mj hi-nájin

The examples above show that second palatalization fails to apply in Manjui before a low vowel, and also when the target is /s, tsʔ/. This is quite puzzling, and we lack a convincing explanation for it. As for /s/, a typical realization in all Chorote varieties is [xs], and the velar articulation could be responsible for

blocking the second palatalization.¹² However, [xs] (as well as [hs]) is usual after a stressed vowel, but less usual in other contexts, such as those shown above. Furthermore, no velar articulation is found in /ts'/.

The cluster *st* is immune to the second palatalization for some Manjui speakers, whereas for others it does palatalize to *ft'*.

- (642) PCh *ʔ^ostáhwe? ‘Chaco chachalaca’ > Ijw ʔistⁱáhwe • I’w istáf^we [our normalization: ʔistáhwe?] • Mj ʔistáhwe? ~ ʔiftáhwe?
- (643) PCh *ʔ^ostá-k ‘cactus (*Stetsonia coryne*)’ > Ijw ʔistⁱé-k • I’w ʔistá-k • Mj ʔistá-k ~ ʔiftá-k
- (644) PCh *ʔ^osténi? / *ʔ^osténi-k ‘white quebracho’ > Ijw ʔistíni-k • I’w isténi-k [our normalization: ʔisténi-k] • Mj ʔisténi? ~ ʔiftíni?
- (645) PCh *k^oústah ‘barn owl’ > Ijw k^jústa • I’w k^jústah [our normalization: k^jústah] • Mj ʔústa ~ ʔúfta

A number of homophonous prefixes of the shape *ʔin-*, which go back to PCh **ŋ-* (second-person inactive, indefinite possessor, and third-person nominative irrealis; see §8.2.2.12), trigger the second palatalization in Manjui, but not in Iyojwa’aja’: compare Mj *ʔin-hl’úk* ‘caragatá bag’ and Ijw *ʔin-hlók* ‘id.’. Interestingly, the palatalization is triggered even if [i] does not surface, as in Mj *ka-n-t’ún* ‘that s/he brings it’ (underlying /ka-Vn-tún/).

The instances of [i] derived from PCh **e* by means of vowel raising (§8.2.3.1) fail to trigger the second palatalization even in coronals.

- (646) PCh *hw^okénah ‘north wind, north’ > Ijw wikína • I’w wikína • Mj hwikína
- (647) PCh *kék’eh ‘monk parakeet’ > Ijw kík’i • I’w kík’ih • Mj kíʔih
- (648) PCh *kéhla-juk ‘red quebracho’ > Ijw kíhla-jik • I’w kíhla-jik • Mj kíhl’e-ek ~ kíhl’a-jik ~ kíhli-jik
- (649) PCh *kitéta-k ‘tree (*Prosopis elata*)’ > Ijw kitíta-k • I’w — • Mj kitíta-k

Finally, non-coronal consonants are not affected by the second palatalization.

- (650) PCh *s^opúp ‘Picui dove’ > Ijw sipóp • I’w sipóp [our normalization: sipóp] • Mj ʃipóp
- (651) PCh *s^o-pásah ‘I am quick’ > Ijw si-pánsa • I’w si-páxsa ~ tsi-páxsa • Mj ʃi-páxsa

¹²In fact, this is our main reason to prefer [(x)s] over [(h)s] in our transcriptions.

- (652) PCh **k'uwáhlah* ‘puma’ > Ijw *k'iwáhla* • I'w *iwáhla* [our normalization: *?iwáhla*] • Mj *?iwáhla*
- (653) PCh **t°kéhna-ke?* ‘mountain’ > Ijw *tikihna-ki?* • I'w *takihna-ki?* • Mj *takihn'e-ki?*
- (654) PCh **hw°kénah* ‘north wind, north’ > Ijw *wikína* • I'w *wikína* • Mj *hwikína*
- (655) PCh **túkús* ‘ant’ > Ijw *tókis* • I'w *tókis* [our normalization: *tókis*] • Mj *tókis*

8.2.1.3 Third palatalization

As noted by Gerzenstein (1983: 43) and Carol (2014a: 100, fn. 36), Iyo'awujwa' and Manjui differ from Iyojwa'aja' in that /k/ (from PCh **q*) does palatalize after /i/ in these varieties. This palatalization clearly occurred late enough, when the vowel raising after palatal(ized) consonants (§8.2.3.1) was no longer productive; the latter process, in turn, was fed by the first two palatalizations (§8.2.1.1–§8.2.1.2), as seen from the fact that the sequence **iqa* yields *ik^ja* and not **ik^je* in Iyo'awujwa' and Manjui. The sequence **iqe*, however, yields *iki* at least in Manjui (probably through the stages **ik^je* and **ik^ji*, with vowel raising followed by depalatalization), as in (662), suggesting that the raising of **e* after palatalized consonants was still productive even after the third palatalization.

- (656) PCh **?i-qÁhla'm* ‘it is sharp’ > Ijw *?ja-káhla'm* • I'w *i-k^jáhlam* [our normalization: *?i-k^jáhla'm*] • Mj *?i-k^jáhla'm*
- (657) PCh **?i-qá-nt'ek* ‘my father-in-law’ > Ijw *?ja-ká-nt'ek* ~ *?i-ká-nt'ek* • I'w — • Mj *?i-k^já-nt'ek*
- (658) PCh **?i-qóhwah* ‘my enemy’ > Ijw *?i-kóhwa* ~ *ja-kóhwa* • I'w *i-k^jófwah* [our normalization: *?i-k^jóhwah*] • Mj *?i-k^jóhwa*
- (659) PCh **?i-qÁhlek* ‘my liver’ > Ijw *?i-káhlik* ~ *ja-káhlik* • I'w *i-k^jáhlek* [our normalization: *?i-k^jáhlek*] • Mj *?i-k^jáhlek*
- (660) PCh **?i-qÁsan* ‘my calf’ > Ijw *?i-káxsa'n* ~ *ja-káxsa'n* • I'w *i-k^jáxsan* [our normalization: *?i-k^jáxsan*] • Mj *?i-k^jáxsen*
- (661) PCh **?i-qVján* ‘s/he is used to’ > Ijw *?ja-kája'n* • I'w *i-k^jojén-e* [our normalization: *?i-k^jojén-e*] • Mj —
- (662) PCh **?i-qéLAh* ‘s/he encourages’ > Ijw *?i-kéla* • I'w — • Mj *?i-kíla*

8.2.1.4 Regressive palatalization

The regressive palatalization occurs systematically in Manjui and, less categorically, in Iyojwa'aja'. It palatalizes /s ts'/ to [ʃ tʃ'] before an [i] (Gerzenstein 1983: 21). In Iyojwa'aja' the allophones [ʃ tʃ'] have also been documented, mostly (but not exclusively) when an /i/ precedes the consonant in question, probably conditioned by subdialectal variation. Notice that in Iyojwa'aja' this is the only environment in which [ʃ] is the usual realization of palatalized /s/, as seen in (666).

- (663) PCh *s^awálák 'spider' > Ijw *siwálak* ~ *fiwálak* • I'w *siwálak* ~ *fiwálak* • Mj *fiwálak*
- (664) PCh *tos-is 'snakes' > Ijw — • I'w *tóxs-is* [our normalization: *tóxs-is*] • Mj *tóxf-is*
- (665) PCh *-áás-ij? 'to sharpen' > Ijw *-á(x)s-i?* • I'w *-áxs-i?* ~ *-áxf-i?* • Mj *-áaf-ij?*
- (666) PCh *ʔis-ís 'they are good' > Ijw *ʔif-ís* • I'w *ʔif-ís* • Mj *ʔas-éis*

8.2.1.5 Depalatalization

Consonants whose articulation involves a secondary articulation (i.e., [C^j]) – this includes both /k^j(')/ and palatalized allophones derived by palatalization – do not contrast with their non-palatal(ized) counterparts before [i] in any Chorote variety.¹³ We represent the allophones that occur before [i] as non-palatalized in our transcriptions. In a number of cases, it is clear that these consonants were palatalized in the past, since they trigger raising in the following vowel (§8.2.3.1) and block the lowering of the following stressed vowel (§8.2.3.2). We attribute the fact that the consonants in question are no longer audibly palatalized to a sound change we dub DEPALATALIZATION, even though, strictly speaking, we cannot always ascertain there ever was a palatalization process which was later reversed. Indeed, this was not the case for /k^j(')/ before [i], where the pre-velar articulation of the contemporary varieties seems to continue that of Proto-Chorote, see §8.1.1.2.

¹³Although not strictly speaking a contrast between [Cⁱ] and [Ci], there is a contrast in Iyojwa'aja' between [k] (the realization of /k^j/ before [i]) and [k] in the environment _[i]: [naʔiwoʔ] 'moro bee honey (comb)' vs. the two-word expression [(ʔi)nakiwoʔ] ~ [(ʔi)naqiwoʔ] 'warehouseman' (underlying /Vn-ák hl-wó/), see Carol (2014a: 79, fn. 6). While it is true that the former probably contains a reflex of PCh *k and the latter undoubtedly instantiates PCh *q, one should keep in mind that, in the two-word expression, /k/ < PCh *q is word-final, a position where the opposition between /k^j/ and /k/ is neutralized (see §8.1.1.2).

- (667) PCh **-hwíhlek* ‘dream’ > Ijw *-hwéhlik* • I’w *-f^wéhlik* [our normalization: *-hwíhlik*] • Mj *-hwíhlik*
- (668) PCh **hwíneh* ‘crab’ > Ijw *hwíni* • I’w — • Mj *hwíni*
- (669) PCh **hw³kénah* ‘north wind, north’ > Ijw *wikína* • I’w *wikína* • Mj *hwikína*
- (670) PCh **ʔi-pén* ‘s/he cooks’ > Ijw *ʔi-píⁿ* • I’w *ʔi-pín* • Mj *ʔi-pín*

Consonants that were diachronically affected by palatalization but with an outcome that does not involve secondary palatalization do not undergo depalatalization. This includes **w* > *j*, *^ʔ*w* > ^ʔ*j*, **hw* > *hj*, **h* > *hj*, as well as sibilants. Recall that in Manjui, less categorically in Iyo’awujwa’, and even less frequently in Iyojwa’aja’, the palatalized counterparts of /*k*^j/, /*k*^j/ (or /*ʔ*^j/ in dialects that show debuccalization), /*s*/, and /*ts*^j/ are articulated as [tʃ], [tʃ^ʔ], [(x)ʃ]/[(h)ʃ], and [tʃ^ʔ], respectively.¹⁴ These sounds do not depalatalize even before [i]: Ijw *ʔil’úxfina* ‘tijera net’, *ʔéxf-ihí?* ‘it is good; thank you’, *kasótfⁱ* ‘six-banded armadillo’; Mj *kaséifi* ‘snake’s rattle’, *ʔi-fín* ‘s/he sends’.

In Manjui and maybe in Iyo’awujwa’, the absence of a secondary palatal articulation has extended to *k*^j(^ʔ) before [e], as in PCh *ɲk’á?* ‘new, recently’ > Mj [ʔink^j’éʔ], cf. Ijw [ʔink^j’éʔ]. However, for simplicity we still represent it as *k*^j(^ʔ) in our transcriptions.

It is possible that in Manjui the depalatalization has extended to other positions, as in PCh **ʔi-nájjin* > **ʔi-nájjin* > **ʔi-n^jájjin* > **ʔi-n^jéjin* > Mj *ʔi-néjin* ‘s/he goes first’; see §8.2.1.

The process in question seems subject to variation and its conditions are still poorly understood, with multiple doublet forms in our corpus: Mj *ʔi-n⁽ⁱ⁾éwetii?* ‘cigarette’, *ʔihn⁽ⁱ⁾éta-k* ‘tusca tree’, *ʔi-hl⁽ⁱ⁾é^m* ‘s/he defecates’. It is likewise possible that the variants with a non-palatalized consonant do not result from a diachronic depalatalization but rather from progressive vowel harmonization (**iCa* or **iCá* > *iCe*), on which matter see Carol (forthcoming).

8.2.1.6 Unexplained palatalization

Instances of palatalization of coronal consonants in the environment *á(ʔ)_u* are documented in Iyojwa’aja’ and, less frequently, in Iyo’awujwa’ and Manjui, which we cannot account for at present.

¹⁴Carol (2014a: 79) actually describes these sounds as alveopalatal: [tɕ], [tɕ^ʔ], [(x)ɕ], and [tɕ^ʔ]. Such narrow transcription is not commonly employed in Chorote studies, and throughout this chapter we will use the symbols [tʃ], [tʃ^ʔ], [(x)ʃ], and [tʃ^ʔ].

- (671) PCh **sátuk* ‘lecherón tree (*Sapium haemospermum*)’ > Ijw *sát^(j)uk* • I’w *sát^(j)uk* • Mj *sátuk*
- (672) PCh **?áhlu?* ‘iguana’ > Ijw *?áhlⁱu?* • I’w *?áhlu?* • Mj *?áhlu?*
- (673) PCh **?alátu?* ‘hail’ > Ijw *?alátⁱu?* • I’w *?alátⁱu?* • Mj *?alát^ʋ?*
- (674) PCh **-qá?tu?* ‘yellow’ > Ijw — • I’w *ká?tsⁱu-<tⁱu?>* • Mj *ká?atⁱu?*

The PM reconstructed forms that gave rise to the cognate sets in (671), (672), and (674), namely **sátu^ʔk*, **?átu(?)*, and **-qá?tu(?)*, respectively, do not contain the necessary environment for the palatalization processes described above. The word for ‘hail’ is a possible borrowing, but the related forms in other languages do not explain palatalization, either (see ‘hail’ in §10.10). It is even possible that we are dealing with a regular sound change, at least in Iyojwa’aja’.

8.2.2 Consonants

This section deals with the evolution of Proto-Chorote consonants in the contemporary varieties.

8.2.2.1 PCh **q*

PCh **q* is normally reflected as /k/ in all contemporary Chorote varieties. The phoneme in question is in fact still articulated as uvular between back vowels, as described by Carol (2014a: 79) for Iyojwa’aja’, but representing it as *k* in the modern Chorote lects is unproblematic, since the erstwhile velar stop **k* has changed to *k^j* in onsets (§8.2.2.2). PCh **q* is unequivocally reconstructed as a uvular stop based on two notable properties of this phoneme: it fails to undergo the first palatalization in the contemporary Chorote varieties (§8.2.1.1) and triggers a lowering effect in the preceding vowels (§8.2.3.6). Some examples of its development in the daughter lects follow.

- (675) PCh **qa* ‘in order to’ > Ijw *ka* • I’w *ka* • Mj *ka*
- (676) PCh **-qahlek* ~ **-qáhlek* ‘liver’ > Ijw *-káhlik* • I’w *-káhlik* • Mj *-káhlik*
- (677) PCh **qajáh* ‘Muscovy duck’ > Ijw — • I’w *kajé* • Mj *kajéh*
- (678) PCh **-qáka?* ‘medicine’ > Ijw *-kákⁱe?* • I’w *-kákⁱe?* • Mj —
- (679) PCh **-qáku?* ‘to distrust’ > Ijw *-kákⁱu?* • I’w — • Mj *-kákⁱu?*
- (680) PCh **-qa^ʔlá?* ~ **-qá^ʔlá?* ‘leg’ > Ijw — • I’w *-kalá?* [our normalization: *-ka^ʔlá?*] • Mj *-ka^ʔlá?*

8.2 From Proto-Chorote to the contemporary varieties

- (681) PCh **qasíwoʔoh* ‘limpkin’ > Ijw *kaséwoʔo* • I’w — • Mj *kaséiwoʔo*
- (682) PCh **-qásit* ‘to stand’ > Ijw *-káxsit* • I’w *-ká(x)sit* • Mj *-káxfít*
- (683) PCh **qatés* ‘star’ > Ijw *katés* • I’w *katés* [our normalization: *katés*] • Mj *katés*
- (684) PCh **-qatóʔ / -qató-keʔ* ‘elbow’ > Ijw *-kátó-kiʔ* • I’w *-katóʔ / -kató-kiʔ* [our normalization: *-katóʔ / -kató-kiʔ*] • Mj *-katóʔ*
- (685) PCh **-qáwak* ‘belt’ > Ijw *-qáʔwak* • I’w *-káwak* • Mj —
- (686) PCh **-qáhna-t* ‘fishhook’ > Ijw *-káhnat* • I’w *-káhnat* • Mj —
- (687) PCh **-qá-s* ‘foods’ > Ijw *-ká-s* • I’w — • Mj *-ká-s*
- (688) PCh **-qásile-j^h* ‘guts’ > Ijw *-káxsili-∅* • I’w *-káxsili-∅* • Mj *-káxfili-∅*
- (689) PCh **-qéjʔ* ‘costume’ > Ijw *-kéʔ* • I’w — • Mj *-kéjʔ*
- (690) PCh **-qóso-keʔ* ‘node’ > Ijw *-kóxso-ki* • I’w *-kóxso-kiʔ* [our normalization: *-kóxso-kiʔ*] • Mj —
- (691) PCh **s^oláhqajʔ* ~ **s^oláhqâjʔ* ‘wild cat’ > Ijw *sil’ákaʔ* • I’w *siláhkaj* [our normalization: *siláhkajʔ*] • Mj *filáhkajʔ*
- (692) PCh **taqám* ‘pacu fish’ > Ijw *takáʔm* • I’w *takám* • Mj —
- (693) PCh **t-ʔaq-ájʔ* ‘its ropes’ > Ijw *t-ʔak-áʔ* • I’w *t-ak-áj* [our normalization: *t-ʔak-ájʔ*] • Mj *t-ʔak-ájʔ*
- (694) PCh **-ʔaqús* ‘knee’ > Ijw *-ʔakós / -kós-ki* • I’w *-kós* [our normalization: *-kós*] • Mj *-(ʔa)kós*

Before a stressed low vowel, the Manjui reflex of PCh **q* has been documented dialectally (in the speech of the Jlimnájnas) as [kx] or [kh]: [kxaʔatiijʔ] ‘mate, tereré (drink)’, [kxaawaʔ] ‘amount’, [waʔkxajʔ] ‘man who has sons/daughters’, alongside [kaʔatiijʔ], [kaawaʔ], [wahʔkajʔ]. Note that the feminine counterpart of the latter noun, where the stress shifts to the last syllable, shows only [k] in the speech of the same Jlimnájnas speaker: [wakájéʔ] ‘woman who has sons/daughters’. We believe that the occurrence of [kx] or [kh] is purely allophonic as opposed to being a reflex of PCh **qh*, since [kxaʔatiijʔ] is evidently related to Paraguayan Guaraní *kaʔa* ‘grass; mate’, where there is no reason to assume **qh*. See the entry PM *[t]qXán ‘to dig’ in §10.8 for a possible reflex of **qh* in the Chorote varieties.

8.2.2.2 PCh *k

PCh *k is retained in the coda position in the daughter lects, but in onsets its default reflex is *k^j* in all daughter varieties, unless palatalization (§8.2.1.1) or depalatalization (§8.2.1.5) applies. In addition, the realization [k̟] is usual in Manjui and probably in Iyo'awujwa' before [e], and before [i] this is true for every Chorote lect. (As stated in §8.2.1.5, we represent this sound conventionally as *k^j* before [e] and as *k* before [i]; see also §8.2.3.1 on surface [e] and [i] after PCh *k.) We surmise that the sound change PCh *k > *k^j* took place after the disintegration of Proto-Chorote. The central piece of evidence for our claim is the fact that this sound change was bled by the first palatalization (§8.2.1.1).

- (695) PCh *-ká? 'tool' > Ijw -k^jé? • I'w — • Mj —
- (696) PCh *ká'lah 'lizard' > Ijw k^jé'la • I'w k^jé'la • Mj k^jé'la
- (697) PCh *-kánt'ijaha? 'kidney' > Ijw -k^jént'ije? • I'w -k^jéntije? [our normalization: -k^jént'ije?] • Mj -k^jéntijee?
- (698) PCh *káhát-uk 'cactus (*Cereus forbesii*)' > Ijw k^jahátⁱ-uk • I'w — • Mj k^jehét-uk
- (699) PCh *-kánis 'testicle' > Ijw -k^jánis • I'w — • Mj -k^jénis
- (700) PCh *-kás 'tail' > Ijw -k^jás • I'w -k^jés • Mj -k^jés
- (701) PCh *-ká? 'to be torn' > Ijw -k^já? • I'w -k^jé?e • Mj -k^jé?
- (702) PCh *-kat 'collective of plants' > Ijw -k^jet • I'w -k^(j)et • Mj -k^jet
- (703) PCh *-kóhjaht-ij? 'heavy' > Ijw -k^jóhjet-i? • I'w -k^jóhje(h)t-i? • Mj -k^jóhjiht-ij?
- (704) PCh *-kój? 'hand' > Ijw -k^jo? • I'w -k^jój [our normalization: -k^jój?] • Mj -k^jój?
- (705) PCh *kó'l 'locust' > Ijw k^jó'l • I'w k^jól [our normalization: k^jó'l] • Mj k^jó'l
- (706) PCh *-kóweh 'middle, center' > Ijw -k^jówe • I'w -k^jówe • Mj -k^jówe
- (707) PCh *-kúhl-APPL 'to answer' > Ijw -k^júhl-APPL • I'w — • Mj -k^júhl-APPL
- (708) PCh *kús-APPL 'to be hot' > Ijw — • I'w k^júxs-APPL • Mj k^jús-APPL
- (709) PCh *-kút-eh 'to meet' > Ijw -k^jút-i • I'w -k^jút-e? [our normalization: -k^jút-e] • Mj -k^jút-e
- (710) PCh *-qáka? 'medicine' > Ijw -kák^je? • I'w -kák^je? • Mj —
- (711) PCh *-qáku? 'to distrust' > Ijw -kák^ju? • I'w — • Mj -kák^ju?

8.2 From Proto-Chorote to the contemporary varieties

- (712) PCh **-tóko?* ‘face’ > Ijw *-tókʰo?* • I’w *-tókʰo?* [our normalization: *-tókʰo?*]
• Mj *-tókʰo?*

In the following examples, PCh **k* yields *k* in the daughter varieties due to the depalatalization process (§8.2.1.5); that is, we posit the following pathway of sound change: **k > *kʰ > k*. The intermediate stage **kʰ* is posited in order to account for the raising effect seen in the following vowel. In (725), the depalatalization is seen only in Iyo’awujwa’ and Manjui, but not in Iyojwa’aja’, which retained the Proto-Chorote vowel *o* due to accent retraction (§8.2.4) and no longer shows the context necessary for the depalatalization to occur. Similarly, in (714) and (727) the depalatalization applies only in those Chorote varieties where the reflex of PCh **k* is now followed by a high front vowel.

- (713) PCh **hwʰkénah* ‘north wind, north’ > Ijw *wikína* • I’w *wikína* • Mj *hwikína*
- (714) PCh **tʰ-ʰákun* ‘s/he eats (intr.)’ > Ijw *ti-ʰékʰuʰn* • I’w *-jékʰun* • Mj *ti-ʰékin*
- (715) PCh **kékʰeh* ‘monk parakeet’ > Ijw *kíkʰi* • I’w *kíkʰih* • Mj *kíʔi*
- (716) PCh **kétʰ* ‘nasal mucus, cold’ > Ijw *kíʰtʰ* • I’w — • Mj *kíʰ*
- (717) PCh **kéhla-juk* ‘red quebracho’ > Ijw *kíhla-jik* • I’w *kíhla-jik* • Mj *kíhʰe-ek*
~ *kíhʰa-jik* ~ *kíhli-jik*
- (718) PCh **-kéjās* ‘grandson’ > Ijw *-kíjas* • I’w *-kíjas* ~ *-kíjes* • Mj *-kíjes*
- (719) PCh **-kén* ‘to send’ > Ijw — • I’w — • Mj *-kín*
- (720) PCh **kéte?* ‘squash’ > Ijw — • I’w *kíti?* • Mj *kíʰe?* ~ *kíti?*
- (721) PCh **-kilá-wot* ‘elder brothers’ > Ijw *-kíʰe-wot* • I’w — • Mj *-kíʰé-wat*
- (722) PCh **kitáʰnih* ‘Chaco tortoise’ > Ijw — • I’w *kitʰéne?* [our normalization: *kitʰéʰni*] • Mj *kitíʰni* ~ *kitíʰnʰe*
- (723) PCh **-kitá-wot* ‘elder sisters’ > Ijw *-kíʰe-wot* • I’w — • Mj *-kíʰé-wat*
- (724) PCh **kitéta-k* ‘tree (*Prosopis elata*)’ > Ijw *kitíta-k* • I’w — • Mj *kitíta-k*
- (725) PCh **-koj-ájʰ* ‘hands’ > Ijw *-kʰój-e* • I’w *-kij-éj* • Mj *-kij-éjh*
- (726) PCh **kuláj?* ‘sun’ > Ijw *kíʰé?* ~ *kíʰi?* • I’w *kiláj* [our normalization: *kiláj?*]
• Mj *kiláj?*
- (727) PCh **-kúm-APPL* ‘to grab’ > Ijw *-kím-APPL* • I’w *-kʰúm-APPL* • Mj *-kʰúm-APPL*
- (728) PCh **tʰkéhna-ke?* ‘mountain’ > Ijw *tíkihna-ki?* • I’w *takíhna-ki?* • Mj *takíhnʰe-ki?*
- (729) PCh **túkus* ‘ant’ > Ijw *tókis* • I’w *tókis* • Mj *tókis*

8.2.2.3 PCh *k(ʼ)w

PCh *kw is reconstructed in order to account for the correspondence between Ijw *k^j* and Iʼw/Mj *k*. Note the sound change PCh *e > Ijw *o* in *j-ókʼos*.

(730) PCh **j-ókʼwah* ‘s/he bites’ > Ijw *j-ókʼe* • Iʼw *-óka* • Mj *j-óka*

(731) PCh **j-ókʼwes* ‘s/he frightens away’ > Ijw *j-ókʼos* • Iʼw — • Mj *j-ókes*

The reconstruction of PCh *kʼw is tentative: in the only potential example, it appears to have merged with *kʼ in Manjui, yielding Mj *ʔ* (or *tʃ* in palatalizing contexts), whereas cognates in Iyojwaʼajaʼ or Iyoʼawujwaʼ are not presently known. The cluster is reconstructed for Proto-Chorote based on evidence from Wichí, but it is likewise possible that PCh *kʼ should be reconstructed instead.

(732) PCh **ʔi-kʼ(w)ós* ‘it is torn open’ > Ijw — • Iʼw — • Mj *ʔi-tʃós*

8.2.2.4 PCh *qʼ

PCh *qʼ is normally reflected as *kʼ* in the contemporary Chorote varieties.

(733) PCh **-qʼáh* ‘tongue’ > Ijw — • Iʼw *-káh* [our normalization: *-kʼáh*] • Mj *-kʼáh*

(734) PCh **-sáqʼál^h* ‘soul’ > Ijw *-sákʼal* • Iʼw *-sákal* [our normalization: *-sákʼal*] • Mj —

In Manjui, PCh *qʼ sometimes debuccalizes to *ʔ* between vowels.

(735) PCh **-hnâqʼát* ‘to snore’ > Ijw *-hnákʼat* • Iʼw *-hnaát* [our normalization: *-hnaʔát*] • Mj *-naʔát*

(736) PCh **[ʔi]túqʼah* ‘to cook in ashes’ > Ijw *[ʔi]tʰókʼa / -tókʼa* • Iʼw — • Mj *[ʔi]tʰúʔu / -tóʔu*

8.2.2.5 PCh *kʼ

Just like PCh *k in onsets (§8.2.2.2), PCh *kʼ acquired palatalization in non-palatalizing environments in the history of all Chorote lects, yielding *k^j, except that it yielded [kʰ] before /i/ and, at least in Manjui, also before /e/ derived from a low vowel. This sound, however, was subject to further change in some varieties. In Manjui, PCh *kʼ > *k^j was debuccalized to *ʔʲ* (and depalatalized to *ʔ* before *i*) in non-palatalizing environments, with very few exceptions. The same sound

change often operated in Iyo'awujwa', where Gerzenstein (1983) attests the resulting sound as $\text{ʔ}^{(j)}$ or j , but there are equally many cases where the original articulation remains; in this case, Gerzenstein (1983) attests the sound in question as $k^{j'}$ or k^j . In Iyojwa'aja', PCh $*k^{j'}$ is mostly retained, but in a few cases one finds a debuccalized variant with ʔ^j (these exceptions are probably best viewed as dialectal borrowings). Note that in Iyo'awujwa' and Manjui ʔ^j contrasts both with ʔ and ʔ^j , whereas the product of debuccalization of PCh $*k$ in Iyojwa'aja' is not distinct from $\text{ʔ}^j < \text{PCh } *ʔ^j$.

- (737) PCh $*-k'alóʔ$ 'cheek' > Ijw $-k^{j'}óloʔ$ • I'w $-k^jalóʔ$ [our normalization: $-k^{j'}alóʔ$] • Mj $-ʔ^{ielóʔ}$
- (738) PCh $*-k'èhn-a'm$ 'to extend' > Ijw $-k'ihn-a'm$ • I'w — • Mj $-ʔihn-a'm$
- (739) PCh $*-k'ésah$ 'to divide' > Ijw $-k'ixsa$ • I'w — • Mj $-ʔixsah-APPL$
- (740) PCh $*k'ihlóʔ$ 'armadillo' > Ijw $k'ihl'óʔ$ • I'w $ihl'óʔ$ [our normalization: $ʔihl'óʔ$] • Mj $ʔihl^{(j)}óʔ$
- (741) PCh $*-k'ihnaʔ$ 'younger sister' > Ijw $-k'ihn^ia \sim -ʔihn^ia$ • I'w $-kihn^ieʔ$ [our normalization: $-k'ihn^ieʔ$] • Mj $-ʔihn^ieʔ$
- (742) PCh $*-k'inih$ 'younger brother' > Ijw $-k'ini \sim -ʔini$ • I'w $-jini$ [our normalization: $-ʔini$] • Mj $-ʔini$
- (743) PCh $*-k'ó-keʔ$ 'waist' > Ijw $-k^{j'}ó-kiʔ$ • I'w $-k^{j'}ó-kiʔ$ • Mj $-ʔó-kiʔ$
- (744) PCh $*-k'óoteʔ$ 'ear' > Ijw $-k^{j'}óteʔ$ • I'w $-k^{j'}óteʔ$ [our normalization: $-k^{j'}óteʔ$] • Mj $-ʔ'óoteʔ$
- (745) PCh $*k'újʔ$ 'cold' > Ijw — • I'w $-júj-APPL$ [our normalization: $-ʔ'új-APPL$] • Mj $ʔ'újʔ$
- (746) PCh $*k'usáh$ 'cháguar' > Ijw $k'is'éh$ • I'w $isáh$ [our normalization: $ʔisáh$] • Mj $ʔisáh$
- (747) PCh $*k'ústah$ 'barn owl' > Ijw $k^{j'}ústa$ • I'w $k^jústah$ [our normalization: $k^{j'}ústah$] • Mj $ʔ'ústa \sim ʔ'ústa$
- (748) PCh $*k'utá'n$ 'thorn' > Ijw $k'it'é'n$ • I'w $ʔitán$ [our normalization: $ʔitá'n$] • Mj $ʔitá'n$
- (749) PCh $*-k'úʔ$ 'horn' > Ijw $-k^{j'}úʔ$ • I'w $-k^{j'}úʔ$ [our normalization: $-k^{j'}úʔ$] • Mj $-ʔ'úʔ$
- (750) PCh $*k^{j'}VlésAh$ '*Jacaratia corumbensis*' > Ijw $k'ilíxsah \sim ʔilíxsah$ • I'w $ʔilíxsa$ • Mj $ʔilíxsa$

- (751) PCh **-pók'o?* ‘foot’ > Ijw *-pókʲ'o?* • I'w *-pókʲ'o?* [our normalization: *-pókʲ'o?*] • Mj *-pók'o?*
- (752) PCh **-ték'uhlu?* ‘brain, marrow’ > Ijw *-ték'ihli?* • I'w *-tékihli* [our normalization: *-ték'ihli?*] • Mj *-té?ihl'u?*

One notable exception is the Manjui reflex of PCh **ṅk'á?* ‘new’ and its derivatives, where the velar articulation is preserved: *?inkʲ'é?* ~ *kʲ'é?* ‘recently’, *?inkʲ'é-jik* ‘new (masculine)’, *?inkʲ'é-jf-i?* ‘new (feminine)’.

In palatalizing environments, the debuccalization does not apply, suggesting that by the time when the sound change PCh **k' > *kʲ' > ?ʲ* took place the first palatalization (§8.2.1.1) had already transformed PCh **kʲ'* into an affricate. For example, the Manjui reflexes of PCh **ṅ-k'óote?* ‘a’nd **?i-k'óote?* ‘my ear’ are, respectively, *?in-?óote?* and *?i-tʲ'óote?*. For examples from Iyo'awujwa', see Gerzenstein (1983: 45).

8.2.2.6 Word-final sonorants in Iyojwa'aja'

In Iyojwa'aja', word-final sonorants receive obligatory glottalization (Carol 2014a: 87–88) and surface as sequences of the type *?C*. An intrusive vowel shows up optionally (dialectally?) if the last syllable is stressed. For example, the forms /A-lán/ ‘I kill’ and /Vn-tate-l/ ‘one’s eyes’ surface as [*?a'laʔan*], [*?in'tateʔl*]. In addition, the approximants /j/ and /w/ not only acquire glottalization but are themselves deleted in the coda position in Iyojwa'aja': /A-kʲ'éw/ ‘I stick’ surfaces as [*?a'kʲeʔ*].

As a consequence, Iyojwa'aja' no longer distinguishes between plain and glottalized sonorants in the word-final position, a contrast clearly present in Proto-Chorote. For example, the pronoun **j-á'm* ‘I’ and the third-person irrealis form **j-ám* ‘that s/he go away’ are now homophonous in Iyojwa'aja' and surface as *já'm* (phonetically [*jaʔam*], underlying representation /jám/). The erstwhile contrast is preserved in Manjui, where *j-é'm* ‘I’ contrasts with *j-ém* ‘that s/he go away’.

8.2.2.7 Loss of *h word-finally

In all modern varieties of Chorote, /h/ is usually deleted word-finally in unstressed syllables, as in Ijw *ti-l'ákinⁱ-e* ‘one dances’ (underlying /t-lákʲVn-ah/). As argued in detail by Carol (2014a: 85–89), /h/ is still present in the underlying representation in such cases, since it prevents the insertion of [ʔ] before a pause (§8.1.1.6). It sometimes appears in Gerzenstein's (1983) transcriptions of

Iyo'awujwa' in unstressed syllables (and, conversely, there are also unexpected instances of its absence even in stressed syllables in her transcriptions, as in I'w *ilí* 's/he washes').

- (753) PCh **-áta*h 'to be fat' > Ijw *-áta* • I'w *-áta*h • Mj *-áta*
- (754) PCh **hwíneh* 'crab' > Ijw *hwéni* • I'w — • Mj *hwéni*
- (755) PCh **hw³kénah* 'north wind, north' > Ijw *wikína* • I'w *wikína* • Mj *hwikína*
- (756) PCh **ká'lah* 'lizard' > Ijw *k'é'la* • I'w *k'é'la* • Mj *k'é'la*
- (757) PCh **kék'eh* 'monk parakeet' > Ijw *kík'i* • I'w *kík'ih* • Mj *kí?i*
- (758) PCh **-koj-áj^h* 'hands' > Ijw *-k'ój-e* • I'w *-kij-éj* • Mj *-kij-éj^h*
- (759) PCh **k'uwáhlah* 'puma' > Ijw *k'iwáhla* • I'w *iwáhla* [our normalization: *?iwáhla*] • Mj *?iwáhla*
- (760) PCh **pá'jih* 'frog (*Leptodactylus* sp.)' > Ijw *pá'ji* • I'w *páji* [our normalization: *pá'ji*] • Mj *pá'ji* ~ *pá?i*
- (761) PCh **-sáq'ál^h* 'soul' > Ijw *-sák'al* • I'w *-sákal* [our normalization: *-sák'al*] • Mj —
- (762) PCh **túсах* 'smoke' > Ijw *tóxs'e* • I'w *tóкса* [our normalization: *tóкса*] • Mj *tóкса*
- (763) PCh **wóp'ih* 'snowy egret' > Ijw *wóp'i* • I'w — • Mj *wóp'ih*
- (764) PCh **?áwusah* 'peccary' > Ijw *?áus'e* • I'w — • Mj *?áwasa*

8.2.2.8 Loss of **h* in Manjui

In Manjui, PCh **h* is typically lost in unstressed syllables between vowels: compare I'w *ajéh-es* and Mj *?a?jé-es* 'jaguars', I'w *wótaha* and Mj *wótaa* 'chicken' (likely borrowed from Ni *βotâxâx*). In some cases Iyo'awujwa' also undergoes this process.

- (765) PCh **?náhâte?* 'Chacoan mara' > Ijw *?náhate* • I'w *náate?* [our normalization: *?náate?*] • Mj *?náate?*
- (766) PCh **-?áhate?* 'female breast' > Ijw *-?áhate* • I'w — • Mj *-?áate?*
- (767) PCh **j-i-he'n(e?)* 's/he sits' > Ijw *j-i-hi'n* • I'w — • Mj *j-i-i'n'e?*

However, a sequence of /h/ and /h/ at morpheme boundaries always yields *h* in Manjui.

- (768) Manjui (Carol 2018)
 a. /i-[?]jas-eh-he[?]ne?/ [ʔi[?]ʔjesehe[?]ne?]
 3.I.RLS-ask-APPL-PL
 ‘s/he asks something to someone’

8.2.2.9 Sequences of PCh *h plus stop

Proto-Chorote clusters of the type *h + stop are preserved in Manjui but are lost in Iyojwa’aja’. Iyo’awujwa’ usually preserves them, but some variation is attested.

- (769) PCh *s[?]láhqaj? ~ *s[?]láhqâj? ‘wild cat’ > Ijw sil[?]áka? • I’w siláhkaj [our normalization: siláhkaj?] • Mj filáhkaj?
 (770) PCh *-ʔóhtale? ~ *-ʔóhtâle? ‘heart’ > Ijw -ʔótale • I’w -óhtele? ~ -óhtale? [our normalization: -ʔóhtele? ~ -ʔóhtale?] • Mj -ʔóhtele? ~ -ʔóhtale?
 (771) PCh *wáhtuk ‘plant sp.’ > Ijw (h)wátok ‘*Enterolobium contortisiliquum*’ • I’w wáhtok ‘*Albizia inundata*’ • Mj wáhtuk ‘*Albizia inundata*’
 (772) PCh *kóhjat-ij? ‘to be heavy’ > Ijw k[?]óhjet-i? • I’w k[?]óhje(h)t-i? • Mj k[?]óhjiht-ij?
 (773) PCh *-héhte- ‘head’ > Ijw -héte- • I’w -héte- [our normalization: -héte-] • Mj -héhte- (vocalic stem)
 (774) PCh *tíhte- ‘plate’ > Ijw títe- • I’w téjti- • Mj téiht- (vocalic stem)

As a consequence of this sound change, Iyojwa’aja’ has a synchronically active alternation whereby the underlying sequences of a stop and /h/ do not yield /hC/ (as in other dialects) but rather /C/.

- (775) Iyojwa’aja’ (Carol 2014b)
 a. /tát-hen/ [tate[?]n]
 throw-APPL:downwards
 ‘throw it to her/him!’
 b. /i-é-háp hA-ná Asíhnâ/ [jihapana’sehn[?]a?]
 3.I.RLS-be-APPL:near FEM-this woman
 ‘s/he is next to the woman’

8.2.2.10 Loss of *h in PCh *hw, *hl

PCh *hw sporadically yields w in pretonic syllables in all Chorote varieties.

(776) PCh *(-)hwVhlek ‘mortar’ > Ijw (-)(h)wánhlek • I’w wihlík • Mj (h)wihlík

(777) PCh *hwisúk ‘palm (*Copernicia alba*)’ > Ijw (h)wisúk • I’w (h)wisúk • Mj (h)wifúk

(778) PCh *hw³kénah ‘north wind, north’ > Ijw wikína • I’w wikína • Mj hwikína

(779) PCh *hwi³jét ‘ice, frost’ > Ijw wi³jít • I’w – • Mj hwi³jít

Gerzenstein (1983: 22–23) documents a number of cases of synchronic variation of *f^w* and *w*, *hl* ([^xl] in her transcription) and *l* in Iyo’awujwa’, as in *naf^wáxlek* ~ *nawáhlek* ‘wasp (*Brachygastra lecheguana*)’, *-f^wés³e* ‘bad’ / *si-wíxs³e* ‘I am bad’, *hlóxsá* ~ *lúxsá* ‘girl’, *hlémi³?* ~ *lémi³?* ‘white’. She further states that the occurrence of [l] as a reflex of PCh *hl is predominant in the third-person pronouns (*l-ám* ‘s/he’, *l-ám-is* ‘they’) and in the second-person active prefix (*l-éj álsa-ham* ‘you are in the forest’). In Carol’s Iyo’awujwa’ records, /hl/ is systematically realized as [l] after a pause.

8.2.2.11 PCh *s

In the contemporary varieties of Chorote, the pronunciation of /s/ varies between [s], [xs], and [hs] intervocally (Carol 2018, 2014a: 79). This happens both in Iyojwa’aja’ ([‘ʔoxsoʔ] ~ [‘ʔohsoʔ] for /óso/ ‘squash’) and in Iyo’awujwa’ and Manjui ([‘taxsina] ~ [‘tahsena] for /tásVnah/ ‘toad’). The realization [xs] ~ [hs] is especially frequent after a stressed syllable, and our transcriptions regularly reflect this.

For some speakers of Manjui, /s/ may surface as [ʃ] in the environments /i_t/, /u_t/, and /_k³/: *ʔiftáh* ‘cactus fruit (*Stetsonia coryne*)’, *ʔúfta* ‘barn owl’, *hóʃkije* ‘be careful’, *náaf k³uʔ* ‘hello’.

Finally, we note that some speakers of Iyo’awujwa’ may articulate the reflex of PCh *s as [ts] word-initially, at least in the 1SG.INACT and 1PL.POSS prefixes (Gerzenstein 1983: 68–70, 76–77), as in (849). For the 1PL.POSS prefix only, Gerzenstein (1983) documents this realization not only for Iyo’awujwa’, but also for Manjui. In Carol’s data, [ts] does not occur in Manjui at all, and in Iyo’awujwa’ it is found in the speech of one speaker from La Merced. Even though it is tempting to speculate that Proto-Chorote could have actually retained the Proto-Mataguayan opposition between */s/ and */ts/ (contrary to our claim in §8.1.1.1), the allophone [ts] in Iyo’awujwa’ is only marginally documented, and for the time being we

contend that the evidence is insufficient to reconstruct the phoneme */ts/ for Proto-Chorote.

8.2.2.12 Syllabic *ŋ

PCh *ŋ is a straightforward retention from PM *ŋ. Most instances of this sound correspond to the allomorphs of three homophonous prefixes that occur word-initially before supraglottal consonants (but not after a particle that ends in a vowel): the second-person inactive prefix, the indefinite possessor prefix, or the third-person nominative irrealis prefix. It is reflected as *ʔin* in Iyojwa'aja' and Manjui, whereas in Iyo'awujwa' the attested reflexes include *in*, *en*, *ŋ*, and *n*. The syllabic nasal is synchronically documented, for example, in I'w *ŋ-tók'o?* 'one's face' (Gerzenstein 1983: 69). In addition, this sound assimilates its place of articulation to that of the following consonant, as in Ijw *ʔim-pá'n* 'that s/he swim', *ʔim-pél-is* 'movie' (literally 'one's shadows'), I'w *im-pélisa* 'you are poor', *ŋ-póxse-j* ~ *im-póxse-j* 'one's beards', and is deleted before a nasal, as in Ijw *ʔi-náhj-e'n* 's/he gives you a bath', *ʔi-má?* 'that s/he sleep', *ʔi-ní-ʔwé'n* 's/he sees herself/himself'; I'w *i-nálen* 'you are hungry', *i-mánis'em* 'you are the last', *i-má-ju?* 'you feel sleepy' (Carol 2014b, Gerzenstein 1983: 75–79).

The insertion of a vowel (documented as [i] in all three modern varieties, and sporadically as [e] in Iyo'awujwa') must have occurred fairly late, when the first palatalization (§8.2.1.1) and the second palatalization (§8.2.1.2) were already complete. This is evident from the fact that the innovative vowel [i] fails to trigger palatalization of coronals in Iyojwa'aja', as would be expected if one were to reconstruct PCh *ʔ^an, *ʔin, or *ʔen.

- (780) PCh *ŋ-tóʔ? 'you are tall' > Ijw *ʔin-tó?* • I'w *in-tóʔ* [our normalization: *ʔin-tóʔ?*] • Mj *ʔin-t'óʔ?*
- (781) PCh *ŋ-pásat 'one's lip' > Ijw *ʔim-páxsat* • I'w *im-páxsat* [our normalization: *ʔim-páxsat*] • Mj *ʔim-páxsat*
- (782) PCh *ŋ-tóweh 'one's belly' > Ijw *ʔin-tówe* • I'w *in-tówe* [our normalization: *ʔin-tówe*] • Mj —
- (783) PCh *ŋ-púse-ʒ^h 'one's beards' > Ijw *ʔim-póxsi-ʔl* • I'w *im-póxse-j* ~ *ŋ-póxse-j* [our normalization: *ʔim-póxse-j* ~ *ŋ-póxse-j*] • Mj *ʔim-póxse-j*
- (784) PCh *ŋ-tóko? 'one's face' > Ijw *ŋ-tók'o?* • I'w *ŋ-tók'o?* [our normalization: *ŋ-tók'o?*] • Mj *ʔin-tók'o?*
- (785) PCh *ŋ-ta-té? 'one's eye' > Ijw *ʔin-táte?* • I'w — • Mj *ʔin-ta-té?*

In Iyojwa'aja' and Manjui, the allomorph *?in-* (or similar), originally found before supraglottal consonants only, has been extended to vowel-initial stems, as in Ijw *?in-ámtik* 'one's word', Mj *?in-éj-is* 'one's names'.¹⁵ This development has also occurred in many *?-initial* stems, where it affected the second-person inactive prefix and the third-person nominative irrealis prefix, but not the indefinite possessor prefix, which retained its original allomorphy pattern (Ijw/Mj *?nót* 'one's chest', underlying /n-?ot/). In Iyo'awujwa', the development in question did not affect at least the second-person inactive prefix: *n-é'le?* 'you are dry', *n-óppaleen* 'you hiccup', *n-átah* 'you are fat' (Gerzenstein 1983: 77).

Another morpheme that may have contained a syllabic nasal in Proto-Chorote, albeit in a different position, is the pluractional suffix **-?n*, with a probable cognate in Nivaçle. In Iyo'awujwa' and Manjui, it behaves as an independent phonological word: I'w *?en*, Mj *?m*. The Iyojwa'aja' reflex is the unstressed enclitic or suffix *-?ni* (underlying /-?nih/).

8.2.2.13 Epenthetic glides

A glide is inserted between vowels at base/suffix or base/enclitic boundary. The glide is /j/ in Iyojwa'aja' and /w/ in Iyo'awujwa' and Manjui.

(786) PCh **?i-hlú-ah* 's/he orders' > Ijw *?i-hl^jú-j-e* • I'w — • Mj *?i-hl^jú-w-a*

(787) PCh **t^o-pó-eh* 'it is full of' > Ijw *ti-pó-j-i* • I'w *ti-pó-w-e* • Mj *ta-pó-w-e*

(788) PCh **?i-hó-éj^h* 's/he goes to' > Ijw *?i-h^jó-j-i* • I'w *?i-h^jó-w-ej* • Mj *?i-h^jó-w-ej*

8.2.2.14 Consonant clusters with *l* in Manjui

In Manjui, several consonant clusters reconstructible to Proto-Chorote undergo a seemingly irregular change, whereby the initial consonant is replaced with /l/, often pronounced as [ɬ] in this environment (Gerzenstein 1983: 26).

(789) PCh **kempénah* 'orphan' > Ijw *kimpéna* • I'w *kimpéna* [our normalization: *kimpéna*] • Mj *kilpéna*

(790) PCh **?askúna?* 'spotted sorubim' > Ijw *?ask^jún^je?* • I'w *ask^júna?* [our normalization: *?ask^júna?*] • Mj *?alk^júna?*

¹⁵Carol (2014b) has also documented a variant with a geminate *n* in Iyojwa'aja' in such cases, as in *?inn-áhak* 'you were beaten' (as opposed to PCh **n-áh-ak*). Our contention is that *?in-* was historically added to the etymological form with the allomorph **n-* when the latter ceased to be productive.

- (791) PCh **ʔa-skúhn-eʔn(eʔ)* ‘I wander’ > Ijw *ʔa-skʰúhn-iʔn* • Iʼw *a-skʰúhn-en* [our normalization: *ʔa-skʰúhn-eʔn*] • Mj *ʔa-lkʰúhn-eʔneʔ*

Yet in other cases, the change seems to be regular: PCh **m* and **t* (allophones of PCh **/hw/* and **/hl/*, respectively, in codas) are reflected as Manjui *l* before a stop, dialectally realized as **t* in that position, whereas the other dialects show *h* in the same environment.

- (792) PCh **naʔqá-p* ~ **-á-* ‘year’ > Ijw *nahkáp* • Iʼw *nahkáp* • Mj *nalkáp*

- (793) PCh **t-ʼamqós* ‘s/he crawls’ > Ijw *t-ʼahkós-ʔn* • Iʼw — • Mj *t-ʼalkós*

8.2.2.15 Other consonantal changes

Sporadic alternations are documented between nasal and oral labial sonorants. For example, PCh **ʼm* yielded Ijw *ʼw* in PCh **[ʔa]ʼmánhliʔ* > Ijw *ʼwán-hle-ʔe* ‘to stay’, whereas PCh **lhw* yielded Ijw *mhl* in **-kʼélhwah* ‘spouse’ > Ijw *-kʼémhla*. Synchronic variation is attested in Mj *-kíʼwehnan* ~ *-kiʼmehnan* ‘to be pregnant’ (compare Ijw *-kʰúʔuhnʰeʔn*).

8.2.3 Vowels

This section deals with the evolution of Proto-Chorote vowels in the contemporary varieties.

8.2.3.1 Vowel raising after palatal and palatalized consonants

In all three contemporary varieties of Chorote, the vowels **a* and **e* are raised to [e] and [i], respectively, after palatal consonants, as in (794)–(808), and after palatalized consonants, derived through the first palatalization, as in (809)–(812), or the second palatalization, as in (813)–(815). Recall that palatalization is not perceptible before a surface *i* (except in consonants that change their place of articulation when palatalized, such as **w* > *j*, **ʼw* > *ʔj*, **hw* > *hj*, **h* > *hj*, **ʼw* > *ʔj*, **k* > *f*, **kʼ* > *tfʰ*, **s* > *f*, **tsʼ* > *tfʰ*); this depalatalization process (§8.2.1.5) is fed by the raising of PCh **e* after palatal(ized) consonants, resulting in the development **Cʰe* > **Cʰi* > *Ci*. Similarly, the depalatalization before *e* in Manjui was fed by the raising of **a* and **á* after palatal(ized) consonants, as in PCh **ʔi-náʔjin* > **ʔi-náʔjin* > **ʔi-nʰáʔjin* > **ʔi-nʰéʔjin* > Mj *ʔi-néʔjin* ‘s/he goes first’.

- (794) PCh **hwiʔjét* ‘ice, frost’ > Ijw *wiʔjít* • Iʼw — • Mj *hwiʔjít*

- (795) PCh **-jáʔ* ‘breath’ > Ijw *-jéʔ* • Iʼw *-jél* • Mj *-jéʔ*

8.2 From Proto-Chorote to the contemporary varieties

- (796) PCh **-ʔjámuk* ‘feces’ > Ijw *-ʔjémuk* • I’w *-jémuk* [our normalization: *-ʔjémuk*] • Mj *-ʔjémuk*
- (797) PCh **-ʔjákun* ‘to eat (intr.)’ > Ijw *-ʔjékʷuʔn* • I’w *-jékʷun* [our normalization: *-ʔjékʷun*] • Mj *-ʔjékin*
- (798) PCh **j-é-ʔeʔ* ‘s/he is in’ > Ijw *j-íʔiʔ* • I’w *j-íʔiʔ* • Mj *j-íʔiʔ*
- (799) PCh **qajáh* ‘Muscovy duck’ > Ijw — • I’w *kajé* • Mj *kajéh*
- (800) PCh **kétʔ* ‘nasal mucus, cold’ > Ijw *kíʔʔ* • I’w — • Mj *kíʔʔ*
- (801) PCh **kékʷeh* ‘monk parakeet’ > Ijw *kíkʷi* • I’w *kíkʷih* • Mj *kíʔi*
- (802) PCh **kéhla-juk* ‘red quebracho’ > Ijw *kíhla-jik* • I’w *kíhla-jik* • Mj *kíhʷe-ek* ~ *kíhʷa-jik* ~ *kíhli-jik*
- (803) PCh **kéteʔ* ‘squash’ > Ijw — • I’w *kítiʔ* • Mj *kítʷeʔ* ~ *kítiʔ*
- (804) PCh **-koj-ájʰ* ‘hands’ > Ijw *-kʷój-e* • I’w *-kij-éj* • Mj *-kij-éjʰ*
- (805) PCh **káʷlah* ‘lizard’ > Ijw *kʷéʷla* • I’w *kʷéʷla* • Mj *kʷéʷla*
- (806) PCh **wósʷkʷat* ‘red-crested cardinal’ > Ijw — • I’w *wóxsijét* [our normalization: *wóxsiʔét*] • Mj *wóxʷeʔet*
- (807) PCh **ʔéjaʔ* ‘mosquito’ > Ijw *ʔéjeʔ* • I’w *ʔéjeʔ* [our normalization: *ʔéjeʔ*] • Mj *ʔéjeʔ*
- (808) PCh **ʔijéstah* ‘dew’ > Ijw *jísta* • I’w *-jísta* ~ *-jiste* • Mj *ʔijísta* ~ *ʔajísta*
- (809) PCh **ʔihnáta-k* ‘tusca tree’ > Ijw *ʔihnʷéta-k* • I’w *ihnʷéta-k* [our normalization: *ʔihnʷéta-k*] • Mj *ʔihnʷ(ʷ)éta-k*
- (810) PCh **-hwíhlek* ‘dream’ > Ijw *-hwéhlik* • I’w *-fʷéhlik* [our normalization: *-hwíhlik*] • Mj *-hwíhlik*
- (811) PCh **ʔi-ʔwén* ‘s/he sees’ > Ijw *ʔi-ʔwíʔn* • I’w *ʔi-ʔwín* • Mj *ʔi-ʔjín*
- (812) PCh **ʔi-ʔwét* ‘my place’ > Ijw *ʔi-ʔwít* • I’w *ʔi-ʔwít* • Mj *ʔi-ʔjít*
- (813) PCh **ʔúlʔáh* ‘scaled dove’ > Ijw — • I’w *ólaha* [our normalization: *ʔólaʔa*] • Mj *ʔólʷ(e)ʔe* ~ *ʔólʷ(a)ʔa*
- (814) PCh **sʷúláh* ‘anteater’ > Ijw *soʔólʷe* • I’w *sʷóʔóla* • Mj *saʔóla* ~ *saʔólʷe*
- (815) PCh **túhw-naʔa* ‘eat it (later)’ > Ijw *tóshw-nʷeʔe* • I’w *tóshw-naʔa* • Mj *tóshw-nʷeʔe* ~ *tóshw-naʔa*

In Manjui and (somewhat less systematically) in Iyo’awujwa’, not only PCh **a*, but also PCh **á* is raised to [e] after palatal and palatalized consonants, on which see §8.2.3.3.

- (816) PCh **-hwéʔjãʔ* ‘to fly’ > Ijw *-hwéʔjaʔ* • Iʔw *-fʷéjeʔ* [our normalization: *-hwéʔjeʔ*] • Mj *-hwéʔjeʔ*
- (817) PCh **-kánis* ‘testicle’ > Ijw *-kʰánis* • Iʔw — • Mj *-kʰénis*
- (818) PCh **-kás* ‘tail’ > Ijw *-kʰás* • Iʔw *-kʰés* • Mj *-kʰés*
- (819) PCh **ʔi-hláʔm* ‘s/he defecates’ > Ijw *ʔi-hlʰáʔm* • Iʔw — • Mj *ʔi-hlʰéʔm*
- (820) PCh **-kéjās* ‘grandchildren’ > Ijw *-kijas* • Iʔw *-kijas* ~ *-kijés* • Mj *-kijés*
- (821) PCh **ʔi-kát* ‘it is red’ > Ijw *ʔi-sʰát* • Iʔw *ʔi-sʰát* ~ [ʔi]sʰét • Mj *ʔi-fét*
- (822) PCh **j-ás* ‘my son’ > Ijw *j-ás* • Iʔw *j-és* • Mj *j-és*
- (823) PCh **j-áp* ‘s/he cries’ > Ijw *j-áp* • Iʔw *j-ép* • Mj *j-ép*
- (824) PCh **ʔipák* ‘straw’ > Ijw *ʔipʰák* • Iʔw *ipʰék* [our normalization: *ʔipʰék*] • Mj —
- (825) PCh **ʔi-hláʔm* ‘s/he defecates’ > Ijw *ʔi-hlʰáʔm* • Iʔw — • Mj *ʔi-hlʰ(i)éʔm*
- (826) PCh **ʔi-máʔ* ‘s/he sleeps’ > Ijw *ʔi-mʰáʔ* • Iʔw — • Mj *ʔi-mʰéʔ* ~ *ʔi-máʔ* ‘s/he camps’

The third palatalization (§8.2.1.3) occurred late enough to counterfeed the raising of **a* to *e* in the varieties that undergo it (Iyoʔawujwaʔ and Manjui). That way, PCh **iqa* and **iqã* are reflected as *ikʰa* and not as **ikʰe* in these varieties. Interestingly, the sequence **iqe* does yield *iki* at least in Manjui (probably through the stages **ikʰe* and **ikʰi*, with vowel raising followed by depalatalization), suggesting that the raising of **e* after palatalized consonants was still productive even after the third palatalization, when the raising of **a* no longer applied.

- (827) PCh **ʔi-qÁhlaʔm* ‘it is sharp’ > Ijw *ʔja-káhlaʔm* • Iʔw *i-kʰáhlam* [our normalization: *ʔi-kʰáhlaʔm*] • Mj *ʔi-kʰáhlaʔm*
- (828) PCh **ʔi-qá-ntʰek* ‘my father-in-law’ > Ijw *ʔja-ká-ntʰek* ~ *ʔi-ká-ntʰek* • Iʔw — • Mj *ʔi-kʰá-ntʰek*
- (829) PCh **ʔi-qÁhlek* ‘my liver’ > Ijw *ʔi-káhlik* ~ *ja-káhlik* • Iʔw *i-kʰáhlek* [our normalization: *ʔi-kʰáhlek*] • Mj *ʔi-kʰáhlek*
- (830) PCh **ʔi-qÁsan* ‘my calf’ > Ijw *ʔi-káxsaʔn* ~ *ja-káxsaʔn* • Iʔw *i-kʰáxsan* [our normalization: *ʔi-kʰáxsan*] • Mj *ʔi-kʰáxsen*
- (831) PCh **ʔi-qéLAh* ‘s/he encourages’ > Ijw *ʔi-kéla* • Iʔw — • Mj *ʔi-kíla*

8.2.3.2 Stressed vowel lowering/laxing

In Chorote, mid and high vowels have special lowered or diphthongized allophones, which occur in stressed syllables. The process is blocked following a [+high] segment: this includes palatalized allophones of consonants, underlying palatal consonants and, for back vowels, the labial consonants /w/, /hw/, /'w/.

The phenomenon is most clearly notable in Iyojwa'aja', where the open allophones of /i u/ are [e o], and thus overlap with the non-lowered allophones of /e o/. Although no merger takes place – since /e o/ are lowered to [ɛ ɔ] in the same environments where /i u/ are lowered to [e o] – the vowels in question are not distinguished in the practical spelling.¹⁶

In Iyo'awujwa', the open allophones of /i u e o/ are, respectively, [ɪ ʊ ɛ ɔ]. Note that Gerzenstein (1983) does not employ the symbols in question in her study; instead, she variably represents [ɪ ʊ] as <e o> or as <i u>, and consistently represents [ɛ ɔ] as <e o>. We retain her transcription when citing forms documented in Gerzenstein (1983), unless when explicitly stated otherwise, but it should be kept in mind that the characters *e* and *o* can each stand for two different sounds (and phonemes). In forms documented by Carol, on the other hand, we do use [ɪ, ʊ].

In Manjui, the lowered or lax allophones of /i u e o/ are, respectively, [eɪ/ɪ], [ʊ/ou], [ɛ/aɪ], [ɔ]. Lowering is less frequent in /u/ in that variety (as in [tʊm] 'eat!') and is not systematically reflected in our data. However, it does consistently occur after a glottal consonant: [sa'ʔɔla] 'anteater', [hɔni] 'bring it (here)'. In one of the subdialects of Manjui spoken in Santa Rosa (probably the Jlimnájnas subdialect), the realization [o] after *hw* was documented in /ahwú/ [ʔa'hwóʔ] 'woman', which is quite unexpected, given that /hw/ behaves as [+high] in other Chorote varieties and does not trigger lowering of a following vowel.¹⁷

¹⁶This spelling is used, for example, in Drayson's (2009) vocabulary, where the grapheme <e> stands for /i/ [e], /e/ [ɛ], and /e/ [e], whereas <o> stands for /u/ [o], /o/ [ɔ], and /o/ [o], though Drayson (2009: 91) does explicitly recognize that the language has "a second *e*" and "a second *o*". Gerzenstein (1978, 1979) also confuses the lowered allophones of /i u/ with /e o/, though she acknowledges the existence of the allophone [ow], which she suspects to map to an independent phoneme.

¹⁷In a couple of words, [u] alternates with [ʊ] or [o] after /hw/ in unstressed syllables: [hlahwuʔ] alongside [hlahwɔʔ] 'strong wind', [(ʔa)jehwuʔ] alongside [ʔa'jehwɔʔ] 'jabiru'. This suggests that /hw/ is specified as [-high] in that subdialect, which could interestingly constitute a retention from Proto-Mataguyan, since PCh **hw* goes back to a fricative, PM **ϕ*. The unexpected behavior of /hw/ in the Jlimnájnas subdialect can hardly be attributed to language contact with a Mataguyan variety where Chorote /hw/ actually corresponds to a fricative, since Santa Rosa is located at the periphery of the Mataguyan-speaking area.

The monophthongized allophone of /i/ appears regularly in the Jlawá'a Wos subdialect in closed syllables, where the other subdialect shows a diphthong (as in *?ints'ík ~ ?ints'éik* 'four'), but sometimes also in open syllables: *lími?* 'white'. The diphthongized realization of /e/ is frequent in the Jlimnájnas subdialect, also in open syllables, in contrast with a monophthongized realization in the other dialect, as in *?áile? ~ ?éle?* 'parrot', *?a-páin-a ~ ?a-pén-a* 'we cook it'. Our transcriptions do not usually reflect these diphthongued realizations of /e/. Preliminarily, the vowels in the Jlimnájnas subdialect seem more lax than those of the Jlawá'a Wos subdialect.

In the Jlimnájnas subdialect, PCh **^oCi* (where C is not a coronal) yields [iCi], whereas the other variety shows [iCej]: *fi-hwífe ~ fi-hwéife* 'I am angry', *hi-p'ílisen ~ hi-p'éilisen* 'you feel sorry for her/him'. By contrast, PCh **iCi* yields [iCi] in all subdialects of Manjui (*?i-hwífe* 's/he is angry language', *?i-p'ílisen* 'I feel sorry for her/him'), apparently not a retention but rather a combination of the first palatalization (§8.2.1.1) and depalatalization (§8.2.1.5). The stressed vowel lowering must have postdated the former process and predated the latter.

8.2.3.3 PCh **á* and **a*

PCh **á* and **a* were clearly distinct in Proto-Chorote, but no contemporary variety of Chorote preserves the opposition in question in all environments. After non-palatal(ized) consonants, both are reflected as *a* in all dialects (except when reduction in unstressed syllables applies, on which see §8.2.3.8).

After palatal(ized) consonants, however, the contrast between PCh **á* and **a* is preserved in Iyojwa'aja', where PCh **á* is reflected as Ijw *a*, and PCh **a* is reflected as Ijw *e*. Recall from §8.2.3.1 that PCh **a* and **e* after palatal and palatalized consonants are raised to [e] and [i], respectively, in all Chorote varieties. In Manjui and, somewhat less systematically, in Iyo'awujwa', not only PCh **a*, but also PCh **á* is raised to [e] in that environment, whereas Iyojwa'aja' reflects the vowel in question as [a]. That way, the underlying opposition between /a/ and /á/, posited by Carol (2014b: 83) for Iyojwa'aja', is non-existent in Manjui and virtually non-existent in Iyo'awujwa'.¹⁸

- (832) PCh **-hwé'já?* 'to fly' > Ijw *-hwé'ja?* • I'w *-f'wéje?* [our normalization: *-hwé'je?*] • Mj *-hwé'je?*
- (833) PCh **-kánis* 'testicle' > Ijw *-k'ánis* • I'w — • Mj *-k'énis*

¹⁸Carol (2014b: 83, fn. 12) states that [a] is exceedingly rare after palatal(ized) consonants in Iyo'awujwa', but does occur, for example, in *k'a'hwijh* 'beneath'.

- (834) PCh **-kás* ‘tail’ > Ijw *-kás* • I’w *-kés* • Mj *-kés*
 (835) PCh **ʔi-hláʔm* ‘s/he defecates’ > Ijw *ʔi-hláʔm* • I’w — • Mj *ʔi-hléʔm*
 (836) PCh **-kéjās* ‘grandchildren’ > Ijw *-kijas* • I’w *-kijas* ~ *-kíjes* • Mj *-kíjes*
 (837) PCh **ʔi-kát* ‘it is red’ > Ijw *ʔi-sát* • I’w *ʔi-sát* ~ *ʔi-sét* • Mj *ʔi-fét*
 (838) PCh **j-ás* ‘my son’ > Ijw *j-ás* • I’w *j-és* • Mj *j-és*
 (839) PCh **j-áp* ‘s/he cries’ > Ijw *j-áp* • I’w *j-ép* • Mj *j-ép*
 (840) PCh **-k’alóʔ* ‘cheek’ > Ijw *-k’óloʔ* • I’w *-k’alóʔ* [our normalization: *-kʲalóʔ*] • Mj *-ʔelóʔ*

8.2.3.4 PCh **ə*

The emergence and the status of the intrusive vowel **ə* in Proto-Chorote is discussed in §8.1.2.6. In the contemporary varieties of Chorote, **ə* has mostly merged with **i* as [i], but this latter merger took place independently in the varieties of Chorote: it fed the second palatalization, which occurred in Iyojwa’aja’ and, with some restrictions, in Manjui (§8.2.1.2), but not the first palatalization (§8.2.1.1). That way, PCh **ə* differs from PCh **i* in not constituting the environment for the first palatalization. The default development of PCh **ə* to *i* in all Chorote varieties is exemplified below.

- (841) PCh **h²-nájin* ‘you go first’ > Ijw *hi-nʲáʔn* • I’w — • Mj *hi-nájin*
 (842) PCh **h²-náʔ* ‘her/his father’ > Ijw *hi-nʲáʔ* • I’w *hi-náʔ* • Mj *hi-náʔ*
 (843) PCh **h²-p’ot-és* ‘its lids’ > Ijw *hi-p’ót-is* • I’w — • Mj *hi-p’at-és*
 (844) PCh **h²-sínân* ‘you roast’ > Ijw *hi-sínʲaʔn* • I’w *hi-sénʲan* • Mj *hi-séinʲan*
 (845) PCh **h²-túm* ‘you eat’ > Ijw *hi-tʲúm* • I’w *hi-tóm* • Mj *hi-tʲúm* ~ *hi-túm*
 (846) PCh **hw²kénah* ‘north wind, north’ > Ijw *wikína* • I’w *wikína* • Mj *hwikína*
 (847) PCh **pʰáʔm* ‘I am tall’ > Ijw *pihjáʔm* • I’w — • Mj —
 (848) PCh **sʲláhqajʔ* ~ **sʲláhqáʔjʔ* ‘wild cat’ > Ijw *silákaʔ* • I’w *siláhkaj* [our normalization: *siláhkajʔ*] • Mj *filáhkajʔ*
 (849) PCh **s²-pásah* ‘I am quick’ > Ijw *si-pánsa* • I’w *si-páxsa* ~ *tsi-páxsa* • Mj *fi-páxsa*
 (850) PCh **s²púp* ‘Picui dove’ > Ijw *sipóp* • I’w *sipóp* [our normalization: *sipóp*] • Mj *fi-póp*
 (851) PCh **s²-tóʔjʔ* ‘I am tall’ > Ijw *si-tʲóʔjʔ* • I’w *fi-tóʔjʔ* • Mj *fi-tʲóʔjʔ*

- (852) PCh *s^əwálák ‘spider’ > Ijw *siwálak* ~ *fiwálak* • I’w *siwálak* ~ *fiwálak* • Mj *fiwálak*
- (853) PCh *t^ə-hwa’jéj? ‘s/he marries’ > Ijw *ti-hwá’ji* • I’w — • Mj *ti-hwa’jij?*
- (854) PCh *t^ə-péj-kej? ‘s/he hears’ > Ijw *ti-pé-tfi?* • I’w — • Mj *ti-péj-fi(j)?*
- (855) PCh *t^ə-’jákun ‘s/he eats (intr.)’ > Ijw *ti-’jék’u’n* • I’w — • Mj *ti-’jékin*
- (856) PCh *w^əkínah ‘metal’ > Ijw *wikín’ie* • I’w — • Mj —
- (857) PCh *ʔ^əstáhwe? ‘Chaco chachalaca’ > Ijw *?istáhwe* • I’w *istáf^ve* • Mj *?istáhwe? ~ ?iftáhwe?*
- (858) PCh *ʔ^əstá-k ‘cactus (*Stetsonia coryne*)’ > Ijw *?ist’é-k* • I’w *?istá-k* • Mj *?istá-k ~ ?iftá-k*
- (859) PCh *ʔ^əsténi? / *ʔ^əsténi-k ‘white quebracho’ > Ijw *?istíni-k* • I’w *isténi-k* [our normalization: *?isténi-k*] • Mj *?isténi? ~ ?iftíni?*
- (860) PCh *ʔ^əstúu’n ‘king vulture’ > Ijw — • I’w *?istó’n* • Mj *?ist’úu’n ~ ?ift’úu’n*

Before a *ʔ*, including those resulting from debuccalization of an ejective dorsal consonant, PCh *^ə typically assimilates to the following vowel, though in (862) the reflex *a* is attested in Manjui.

- (861) PCh *h^ə-s^ə?ún ‘you love’ > Ijw — • I’w *hi-sv?ón* • Mj *hi-sv?ón*
- (862) PCh *s^ə?úlah ‘anteater’ > Ijw *so?ól’ie* • I’w *sv?óla* • Mj *sa?óla ~ sa?ól’ie?*
- (863) PCh *wós^ək’at ‘red-crested cardinal’ > Ijw — • I’w *wóxsijét* [our normalization: *wóksi?ét*] • Mj *wóxfet*

In a handful of cases, PCh *^{tə} yields *ta* instead of the expected **ti* in Manjui and occasionally also in Iyo’awujwa’.

- (864) PCh *t^əkénah ‘precipice’ > Ijw *tikína* ‘ravine’ • I’w — • Mj *takína*
- (865) PCh *t^əkéhna-ke? ‘mountain’ > Ijw *tikihna-ki?* • I’w *takíhna-ki?* • Mj *takíhn’ie-ki?*
- (866) PCh *t^əlúk ‘blind’ > Ijw — • I’w *talók* [our normalization: *talók*] • Mj —
- (867) PCh *t^ə-pó-eh ‘it is full of’ > Ijw *ti-pó-j-i* • I’w *ti-pó-w-e* • Mj *ta-pó-w-e*

Finally, PCh *^ə has distinct reflexes before uvular consonants. These are discussed in §8.2.3.6.

8.2.3.5 Unstressed PCh *u and *o after palatal and palatalized consonants

In the unstressed position, PCh *u and *o quite regularly yield *i after PCh *k(ʻ) > *kʲ(ʻ) and *j in all contemporary varieties, with few exceptions, such as (868) in Iyojwa'aja' and Iyo'awujwa'. (869) shows that this sound change was fed by the stress retraction in Iyojwa'aja' (§8.2.4), suggesting that it occurred independently in different Chorote varieties.

- (868) PCh *t^ə-^ʔjákun 's/he eats (intr.)' > Ijw ti-^ʔjékʲu'n • I'w -jékʲun • Mj ti-^ʔjékin
 (869) PCh *-koj-áj^h 'hands' > Ijw -kʲój-e • I'w -kij-éj • Mj -kij-éjh
 (870) PCh *kulájʔ 'sun' > Ijw kilʲéʔ ~ kiliʲé • I'w kiláj [our normalization: kilájʔ]
 • Mj kilájʔ
 (871) PCh *k'utá'n 'thorn' > Ijw k'itʲé'n • I'w ʔitán [our normalization: ʔitá'n] •
 Mj ʔitá'n
 (872) PCh *k'uwáhlah 'puma' > Ijw k'iwáhla • I'w iwáhla [our normalization:
 ʔiwáhla] • Mj ʔiwáhla
 (873) PCh *túkus 'ant' > Ijw tókis • I'w tókis • Mj tókis
 (874) PCh *kéhla-juk 'red quebracho' > Ijw kíhla-jik • I'w kíhla-jik • Mj kíhlʲe-ek
 ~ kíhlʲa-jik ~ kíhli-jik

Unstressed PCh *u may also sometimes change to i in the modern varieties after other consonants, but details are thus far unclear, and we consider this a sporadic change.

- (875) PCh *-hwétus 'root' > Ijw -hwétis • I'w f^wétis [our normalization: hwétis]
 • Mj -hwétus
 (876) PCh *p'ilusáh 'poor' > Ijw p'ilúxs^{ʲe} ~ p'élis^{ʲe} • I'w -pelíxsa [our normal-
 ization: -p'ilíxsa] • Mj p'ilisáh

8.2.3.6 Vowel lowering before *q(ʻ)

Chorote has a number of alternations that consist of vowel lowering before the consonant *q(ʻ) (reflected as k(ʻ) in the contemporary varieties). For example, the homophonous first-person singular inactive and first-person inclusive possessive prefixes (PCh *s^ə-) usually surface as *fi*- before consonants in Manjui, but as *si*- (or, more rarely, *se*-) before /k(ʻ)/. In Iyojwa'aja', the cognate prefix has the allomorphs *si*- and *sa*- in the same respective contexts.

- (877) Manjui (Carol 2018)
- a. ʃi-táhwel-e
1.INACT-know-APPL
'I know her/him'
 - b. $\text{ʃi-}^{\text{?}}\text{wét}$
1+2.POSS-place
'our (incl.) place'
 - c. si-káa?
1.INACT-choke
'I choke'
 - d. $\text{si-ká}^{\text{?}}\text{mat}$
1+2.POSS-meat
'our (incl.) meat'

In Iyojwa'aja', the first-person possessive prefix (PCh $^{\text{?}}\text{i-}$) and the third-person I-class verbal prefix (PCh $^{\text{?}}\text{i-}$) are usually reflected as ʔi- before consonants but as $\text{ja-} \sim \text{ʔi-}$ before $/\text{k}(\text{'})/$ (878), whereas the third-person T-class verbal prefix (PCh $^{\text{?}}\text{t-}$) is normally reflected as ti- before consonants but as ta- before $/\text{k}(\text{'})/$ (879).

- (878) Iyojwa'aja' (Carol 2014b)
- a. $\text{ʔi-p}^{\text{!}}\text{á}^{\text{?}}\text{n}$
3.I.RLS-swim
's/he swims'
 - b. $\text{ʔi-hn}^{\text{!}}\text{étis}^{\text{!}}\text{e}^{\text{?}}\text{n}$
3.I.RLS-sneeze
'it makes her/him sneeze'
 - c. $\text{ja-k}^{\text{!}}\text{óhoko?}$
3.I.RLS-cough
'it makes her/him cough'
 - d. $\text{ja-k}^{\text{!}}\text{óhn}^{\text{!}}\text{e}^{\text{?}}\text{n}$
3.I.RLS-feed
's/he feeds'
 - e. $\text{ʔi-p}^{\text{!}}\text{úxsi?}$ ($^{\text{?}}\text{ja-p}^{\text{!}}\text{óxsi?}$)
1SG.POSS-beard
'my beard'

- f. ja-ká-nt'ek ~ ?i-ká-nt'ek
 1SG.POSS-ALZ-grandfather
 'my father-in-law'

(879) Iyojwa'aja' (Carol 2014b)

- a. ti-l'áki'n
 3.T.RLS-dance
 's/he dances'
- b. ti-més
 3.T.RLS-be_two
 'they are two'
- c. ti-póxsi?
 3.T.RLS-have_beard
 'he has a beard'
- d. ta-káxsit
 3.T.RLS-stand
 's/he stands'
- e. ta-kélis¹e'n
 3.T.RLS-sing
 's/he sings'
- f. ta-k'óhoko?
 3.T.RLS-cough
 's/he coughs'
- g. ta-kóhn¹e'n
 3.T.RLS-feed
 's/he feeds someone'

At least in the case of the prefixes of the shape PCh *?i- in Iyojwa'aja', one may suspect the influence of the neighboring dialects of Wichí, such as 'Weenhayek, which show an identical phenomenon (§9.2.2.5).

8.2.3.7 Pretonic PCh *á, *o

Pretonic PCh *á yielded *i* in the contemporary varieties, late enough to counter-feed the second palatalization. It seems that this process is still underway: note that both variants have been synchronically attested in Iyojwa'aja' *pisáh* ~ *pitsáh* ~ *pasáh* 'jabiru' (Drayson 2009: 143–144). The term Ijw *kiláji*, Mj *kiláji?* ~ *kiláju?*

‘non-indigenous person’ is likely borrowed from some western Guaranian variety, from a form close to Ava Bolivian Guaraní [ka'rai] (Daviet 2016: 76).

There are no clear examples of PM **o* in pretonic position, but Ijw *sihnát* ‘knife’, a possible early loanword from PW **tsonhat*, suggests that pretonic **o* merged with PM **á* as *á*, since the Iyojwa’aja’ reflex of both vowels is an *i* that fails to palatalize a following coronal: PM *páttséχ* > PCh **pátsáh* ‘jabiru’ > Ijw *pi(t)sáh* ~ *pasáh* • I’w *pisáh* • Mj *pisáh*; cf. also Ijw -<*te*>*sahnat* ‘knife (relational)’. The Iyo’awujwa’ and Manjui term for woman, *’nikí?*, can be likely traced back to PCh **’ni’no-ké?* ‘;’ where a root meaning ‘man, person’ is accompanied by a feminine suffix.

8.2.3.8 Unstressed vowel reduction in Iyojwa’aja’

In word-medial and word-initial unstressed syllables after a coronal or palatal(ized) sound, PCh **e*, **a*, and **á* are raised to *i* in Iyojwa’aja’, as in Ijw *táxsina* ‘toad’ (compare Mj *táxsena* ‘id.’). After consonants that are not coronal or palatal(ized), the raising fails to occur, as in Ijw *pu-wá?* ‘those (unknown)’ and *ha-wá?* ‘those (absent)’, except that PCh **e* does get raised after non-coronals when it is preceded by a coronal (880e).

- (880) Iyojwa’aja’
- ’éle?* ‘parrot’ / *’éli-wa?* ‘parrots’
 - s’ún’i?* ‘this’ / *s’úni-wa?* ‘these’
 - k’i?* ~ *s’i-k’i?* ‘that (gone)’ / *ki-wá?* ~ *s’i-ki-wa?* ‘those (gone)’
 - ’ahwéna* ‘bird’ / *’ahwéhni-ki?* ‘little bird’
 - t-’óhwe’n* ‘s/he wakes up’ / *t-’óhwin-’ni* ‘s/he wakes up repeatedly’

Raising of PCh **e* to *i* may also occur in final syllables in Iyojwa’aja’ (and sometimes in Iyo’awujwa’) before, at least, *s* and *n*.

- (881) PCh **’ahnát-es* ~ **’áhnát-es* ‘lands’ > Ijw *’ahnát-is* • I’w *ahnát-is* [our normalization: *’ahnát-is*] • Mj *’ahnát-es*
- (882) PCh **-káhnat-es* ‘fishhooks’ > Ijw *-káhnat-is* • I’w *káhnat-es* • Mj —
- (883) PCh **-lák’én* ‘to dance’ > Ijw *-láki’n* • I’w *-lák’én* • Mj *-lák’én*

8.2.3.9 Pretonic lowering in Manjui

Pretonic vowels are sometimes lowered to *a* in Manjui (and, less frequently, also in Iyo’awujwa’).

- (884) PCh **ʔis-ís* ‘they are good’ > Ijw *ʔis-ís* • I’w — • Mj *ʔas-éis*
- (885) PCh **kates-él* ‘stars’ > Ijw *katés-eʔl* • I’w *kates-éj* [our normalization: *kates-éjh*] • Mj *katas-éjh*
- (886) PCh **(h²-)pʔot-és* ‘(its) lids’ > Ijw *hi-pʔót-is* • I’w *-pót-es* [our normalization: *-pʔót-es*] • Mj *(hi-)pʔat-és*
- (887) PCh **ʔiʔnát* ‘water’ > Ijw *ʔiʔnʔát* • I’w *ʔanát* [our normalization: *ʔaʔnát*] • Mj *ʔaʔnát*
- (888) PCh **ʔijéstah* ‘dew’ > Ijw *jísta* • I’w *-jísta* ~ *-jíte* • Mj *ʔijísta* ~ *ʔajísta*

8.2.3.10 Simplification of “double” vowels

Proto-Chorote had heterosyllabic sequences of identical vowels that exceptionally were not separated by a glottal stop. These are retained in Manjui but simplified in Iyojwaʔajaʔ and Iyoʔawujwaʔ.

- (889) PCh **-ʔáan* ‘to watch’ > Ijw *-ʔéʔn* • I’w *-jén-* [our normalization: *-ʔén-*] • Mj *-ʔéen*
- (890) PCh **-áajʔ* ‘mouth’ > Ijw — • I’w *-áj* [our normalization: *-ájʔ*] • Mj *-áajʔ*
- (891) PCh **-háakeʔ* ‘ditch’ > Ijw *-hákiʔ* • I’w *-hákiʔ* • Mj *-háakiʔ*
- (892) PCh **-kʔóoteʔ* ‘ear’ > Ijw *-kʔóteʔ* • I’w *-kʔóteʔ* [our normalization: *-kʔóteʔ*] • Mj *-ʔʔóoteʔ*
- (893) PCh **ʔstúuʔn* ‘king vulture’ > Ijw — • I’w *ʔistóʔn* • Mj *ʔiftʔúuʔn*
- (894) PCh **hl-úut* ‘scales’ > Ijw *hl-ót* ‘placenta’ • I’w *hl-ót-is* [our normalization: *hl-ót-is*] • Mj *hl-úvt*

The Mataguayan background of such sequences is poorly understood at present. We assume that in some cases they result from loss of an intervocalic **h*, yet in other cases they arose due to simplification of certain consonant clusters, as in **stwV* > **ʔstVV*, **qk* > **Vk*. They are not in any way related to the long vowels of ʔWeenhayek.

8.2.3.11 Other vowel changes

This section describes other minor or subregular vowel changes in the Chorote varieties.

The alternation *a* ~ *o* includes environments other than those discussed in §8.2.3.9. Note that the variation in (896) has a parallel in Nivaêcle, where both

toβāk and *toβok* ‘river’ are attested. The alternation in (897) and (898) could reflect the sound change PM **o* > *â* that might have been blocked in some varieties before a labiovelar, but in the absence of reliable cognates the directionality of the change cannot be ascertained.

- (895) PCh **má(h)* ‘go!’ > Ijw *má(h)* • I’w — • Mj *móh*
- (896) PCh **téwok* [?] ~ **téwāk* ‘river’ > Ijw *téwuk* • I’w *téwak* [our normalization: *téwak*] • Mj *téwak*
- (897) PCh **?i-t’owás* [?] ~ **?i-t’awás* ‘to punch’ > Ijw *?i-t’ówas* • I’w *-t’awás* • Mj *?i-t’owás* ~ *-t’awás*
- (898) PCh **ts’ahwá?* [?] ~ **ts’ohwá?* ‘woodpecker (*Colaptes sp.*)’ > Ijw *ts’ahwá?a* • I’w — • Mj *ts’ahwá?* ~ *ts’ohwá?*

Variation of this type is also attested in Manjui words that do not reconstruct to Proto-Chorote, such as Mj [*j*]*áwaset* ~ [*j*]*áwoset* ‘to address directly’. Curiously enough, the subdialectal variation in Manjui may also affect stressed vowels, as in *Wónta* ~ *Wánta* ‘Santa Rosa’.

The sequence **ji* after a stressed low vowel is deleted in Iyojwa’aja’.

- (899) PCh **-nájin* ‘to go first’ > Ijw *-ná’n* • I’w *-nájin* • Mj *-nájin*

PCh **u* was lowered to /o/ ([o], [ɔ]) in Iyojwa’aja’ before PCh **q*. Only one example is known.

- (900) PCh **-túk’ah* ‘to cook in ashes’ > Ijw *-tók’a* • I’w — • Mj *-túʔʊ*

PCh **e* has apparently yielded *o* in Iyojwa’aja’ after PCh **kw* > Ijw *kʲ*, though only one example is known.

- (901) PCh **j-ókwes* ‘to frighten away’ > Ijw *j-ókʲos* • I’w — • Mj *j-ókes*

8.2.4 Word-level prosody

Iyo’awujwa’ and Manjui quite faithfully retain the position of the stress reconstructed for Proto-Chorote. By contrast, Iyojwa’aja’ innovated in that it no longer allows postpeninitial stress, licit in Proto-Chorote (and Proto-Mataguanan), and systematically retracts the stress to the peninitial syllable, as can be seen in the following examples.

8.2 From Proto-Chorote to the contemporary varieties

- (902) PCh **kates-él* ‘stars’ > Ijw *katés-eʹl* • Iʹw *kates-éj* [our normalization: *kates-éjh*] • Mj *katas-éjh*
- (903) PCh **-qatóʔ/-qató-keʔ* ‘elbow’ > Ijw *-kátó-kiʔ* • Iʹw *-katóʔ/-kató-kiʔ* [our normalization: *-katóʔ/-kató-kiʔ*] • Mj *-katóʔ*
- (904) PCh **-kiláʔ* ‘elder brother’ > Ijw *-kílʹa* • Iʹw *-kilʹéʔ* • Mj *-kilʹéʔ*
- (905) PCh **-koj-ájʰ* ‘hands’ > Ijw *-kʹój-e* • Iʹw *-kij-éj* • Mj *-kij-éjh*
- (906) PCh **-ta-téʔ* ‘eye’ > Ijw *-tá-teʔ* • Iʹw *-ta-téʔ* [our normalization: *-ta-téʔ*] • Mj *-ta-téʔ*
- (907) PCh **?i-tʹowás* ~ *?i-tʹawás* ‘to punch’ > Ijw *?i-tʹówas* • Iʹw *-tʹawás* • Mj *?i-tʹowás* ~ *-tʹawás*
- (908) PCh **?i-selán* ‘to prepare’ > Ijw *?i-léxsan-e* • Iʹw *?i-silʹén-* • Mj *?i-filʹén*

As a consequence of this accent retraction, all stems that take obligatory syllabic prefixes (this includes all stems that start with a supraglottal consonant) and receive stress on their second syllable in Iyoʹawujwaʹ/Manjui correspond to stems with initial stress in Iyojwaʹajaʹ (Carol 2014a: 91, fn. 22). By contrast, stems that take non-syllabic prefixes – such as *-ʔahán* ‘to know’ or *-ʔahwélh* ‘to be ashamed’ – retain the original accent in Iyojwaʹajaʹ, because the accretion of a prefix to the stem does not result in an illicit postpeninitial stress: *ts-ʹahán-e* ‘I know’, *ts-ʹahwélh* ‘I am ashamed’. Non-initial stress is likewise allowed in non-prefixed stems: *?ahwéna* ‘bird’, *?aʹláʔ* ‘tree’, etc.

9 Wichí

This chapter deals with the historical phonology of Wichí [wich1261] (§1.1.4). §9.1 discusses the development of PM consonants, vowels, and prosody from the PM stage to Proto-Wichí. §9.2 is concerned with the diversification of the Wichí varieties.

For the 'Weenhayek variety, we rely on Claesson (2016)'s dictionary as well as Alvarsson & Claesson's (2014) grammatical description and Claesson, Claesson's (1994, no date) phonological descriptions. For Vejoz, we have consulted the vocabularies by Viñas Urquiza (1974) and Gutiérrez & Osornio (2015). For the Lower Bermejeño variety, we rely on Nercesian (2014)'s grammar and on Braunstein's (2009) vocabulary as a secondary source; in addition, many flora and avifauna terms have been extracted from Spagarino (2008) and Spagarino et al. (2013 [2011]). Suárez (2014) is a useful source on plant names in the South-eastern variety as spoken in Salta.

The consonantal inventory we assume for Proto-Wichí is given in Table 9.1. The vocalic inventory we assume for Proto-Wichí includes six or seven vowels, */i (ɪ) e a ǎ o u/.

Table 9.1: Proto-Wichí consonants

| | labial | dental | alveolar | palatal | dorsal | dorsal labialized | glottal |
|--------------------|--------|--------|----------|-----------------|-------------|---|---------|
| plain stops | *p | *t | *ts | *k ^j | *q *[q ~ k] | *k ^w *[k ^w ~ q ^w] | *ʔ |
| ejective stops | *pʰ | *tʰ | *tsʰ | *kʰ | *qʰ | *k ^{wʰ} | |
| fricatives | | *ɬ | *s | | *χ *[χ ~ x] | *x ^w | *h |
| plain approximants | *w | *l | | *j | | | |
| gl. approximants | *ʷ | *ɭ | | *ʝ | | | |
| plain nasals | *m | *n | | | | | |
| glottalized nasals | *m̥ | *n̥ | | | | | |

Individual Wichí lects depart from this scheme in a number of ways. Regarding the consonant system, in a number of (sub)dialects PW *k^j and *k^{jʰ} are replaced with /tʃ/ and /tʃʰ/, whereas PW *x^w is often replaced with /f^w/ or /h^w/. Contemporary Wichí lects also have aspirated stops, voiceless approximants, and voiceless nasals, though their phonological status is debated. No contemporary Wichí lect

is known to retain the hypothetical phoneme PW $*t$, and many varieties also lack $*\dot{a}$.

9.1 From Proto-Mataguayan to Proto-Wichí

This section deals with the development of PM consonants (§9.1.1), vowels (§9.1.2), and prosody (§9.1.3) from the Proto-Mataguayan stage to Proto-Wichí. §9.1.4 presents evidence for the regular operation of Watkins' Law in the historical development of Proto-Wichí, whereby forms with third-person inflection were reanalyzed as uninflected forms.

9.1.1 Consonants

The historical development of the PM consonants in Wichí includes the following sound changes: the sound change PM $*\phi > \text{PW } *x^w$ (§9.1.1.1), the palatalization of PM $*k(')$ to PW $*k^i(')$ in the onset position and the labialization of PM $*k$ to PW $*k^w$ in the coda position after a back vowel (§9.1.1.2), the merger of the fricatives PM $*x$ and $*\chi > \text{PW } *x$ (in codas, except that PM $*ox, *ux, *ux > \text{PW } *ox^w, *ux^w, *ux^w$) or $*h$ (in onsets, merging with PM $*h$) (§9.1.1.3), the deaffrication of PM $*ts$ to PW $*s$ in the coda position (§9.1.1.4), the loss of contrastive glottalization in non-nasal codas (§9.1.1.5), the fortition of glottalized fricatives (§9.1.1.6), the change of word-initial PM $*ji-$ to PW $*ʔi-$ preceding non-dorsal consonants (§9.1.1.7), the sound change PM $*[ʔ] > \text{PW } *h$ in onset of syllables followed by a syllable with a glottalized consonant (§9.1.1.8), the deglottalization of glottalized onsets of syllables followed by a syllable with a glottalized consonant (§9.1.1.9), the loss of word-final PM $*h$ following syllables with a glottalized obstruent (§9.1.1.10), the insertion of a word-final PW $*h$ following an accented vowel (§9.1.1.11), the change of word-final PM $*-nV$ to PW $*-ʔnVh$ (§9.1.1.12), the change of word-final PM $*(')l$ to PW $*l^h$ (§9.1.1.13), the loss of word-final PM $*ʔ$ in posttonic syllables (§9.1.1.14), and the change of syllabic PM $*n, *t$ to PW $*ni, *ta$ (§9.1.1.15). The evolution of Proto-Mataguayan consonant clusters is described in §9.1.1.16 (for clusters whose second element is a guttural fricative) and §9.1.1.17 (for all other clusters).

9.1.1.1 PM $*\phi$

Proto-Mataguayan $*\phi$ yielded PW $*x^w$ (in the contemporary varieties of Wichí, the pronunciation of its default reflex varies from $[x^w]$ to $[f^w]$, as detailed in

§9.2.1.4) in both onsets and codas. For a representative sample of examples, see §2.1.7.

Two cognate sets show irregular reflexes of PM $*\phi$ in Wichí: $*x^w \overset{?}{\sim} *w$ in (1), $*p$ in (2).

- (1) PM $*[ji]\phi\overset{?}{a}j\overset{?}{a} \overset{?}{\sim} *f\overset{?}{a}j\overset{?}{a}$ ‘to fly’ > Ni $[ji]\phi\overset{?}{a}j\overset{?}{a}$ • PCh $*[ʔi]hw\overset{?}{e}j\overset{?}{a}ʔ$ • PW $*x^wej\overset{?}{a} \overset{?}{\sim} *w - \overset{?}{\sim} *i-$
- (2) PM $*ti^{\phi}$ ‘to suckle’ > Mk $tu^f / -tu^f$ • Ni ti^{ϕ} • PCh $*[ʔi]t\overset{?}{i}m$ • PW $*tip$

At least in the latter example, the reflex $*p$ may turn out to be the regular outcome of the preglottalized coda PM $*^{\phi}$ (see §2.3 on the preglottalized codas of Proto-Mataguayan). We have not identified any other example of PM $*^{\phi}$ in our comparative corpus. Note that the causative of PW $*tip$ ‘to suckle’ is PW $*[ʔi]tix^w-qat$ ‘to breastfeed’, with a regular reflex of $*PM \phi$.

9.1.1.2 PM $*q$, $*k$, and their glottalized counterparts

This subsection describes the evolution of PM $*q$ and $*k$ (and their glottalized counterparts) in Wichí. Already in Proto-Mataguayan, the distribution of these segments appears to have been subject to some restrictions: PM $*q$ is not reconstructed following non-low vowels (that is, the sequences $*uq$, $*oq$, $*eq$, $*iq$ are not known to have been possible in PM), whereas $*k$ was apparently banned following PM $*a$. Both PM $*q$ and $*k$ could occur stem-initially (as in $*qati^{\phi}ts$ ‘star’ vs. $*k\overset{?}{a}^{\phi}s$ ‘tail’) and following an $*\overset{?}{a}$ (as in $*ts\overset{?}{a}h\overset{?}{a}q$ ‘chajá bird’ vs. $*nij\overset{?}{a}k$ ‘cord, rope’); data regarding $*q$ and $*k$ in post-consonantal position are scarce. Stem-final $*k$ could also alternate with $*h$ in plural formation, as in $*-m\overset{?}{a}^{\phi}k$, plural $*-mh\overset{?}{a}j$ ‘powder, flour’ (§5.2.3).

In Proto-Wichí, PM $*q$ and $*q^{\phi}$ remained intact in all positions.

- (3) PM $*-\overset{?}{a}q$, $*-q\overset{?}{a}-ts$ ‘food’ > Mk $-aq$, $-qa-ts$ • Ni $-\overset{?}{a}k$, $-k\overset{?}{a}-s$ • PCh $*-\overset{?}{a}k$, $-q\overset{?}{a}-s$ • PW $*-t\overset{?}{a}q$, $*-q\overset{?}{a}<s>$
- (4) PM $*-\phi qat\overset{?}{o}$ ($*-l$) ‘elbow’ > Ni $-(ʔV)\phi kato$ ($-k$) • PCh $*-qat\overset{?}{o}ʔ$ ($*-l$) • PW $*-q\overset{?}{a}to$ ($*-l^h$)
- (5) PM $*q\overset{?}{a}- / *q-$ ‘indirect possession’ > Mk $qe-$ / $qa-$ / $qo-$ / $q-$ • Ni $ka-$ / $k-$ • PCh $*q\overset{?}{a}- / *q-$ • PW $*q\overset{?}{a}- / *q-$
- (6) PM $*-q\overset{?}{a}ka$ ($*-l$) ‘medicine’ > PCh $*-q\overset{?}{a}kaʔ$ ($*-l$) • PW $*-q\overset{?}{a}k^j\overset{?}{a}$ ($*-l^h$)
- (7) PM $*[ji]q\overset{?}{a}kuʔ$ ‘to distrust’ > Mk $[je]q\overset{?}{e}kuʔ$ • Ni $[ji]kaku$ • PCh $*[ji]q\overset{?}{a}kuʔ$ • PW $*[ji]q\overset{?}{a}k^j\overset{?}{u}-APPL$

- (8) PM *-qaláʔ (*-j^h) ‘leg’ > Ni -kaklâʔ (-j) • PCh *-qaʔláʔ ~ *-qâʔláʔ (*-j^h) • PW *-qálâ (*-j^h)
- (9) PM *[t]qási(ʔ)t / -qási(ʔ)t ‘to stand’ > PCh *[tʰ]qásit • PW *[t]qásit; IMP *qásit
- (10) PM *qatiʔts, *qatits-él ‘star’ > Ni katiʔs • PCh *qatés, *qates-él • PW *qates, *qatéts-el^h
- (11) PM *qatsíwo(?) ‘limpkin’ > PCh *qasíwo<ʔoh> • PW *qatsíwo
- (12) PM *-qáwa(ʔ)q ‘belt, band’ > PCh *-qáwak • PW *-qáwaq
- (13) PM *-qáʔtu(?) ‘yellow’ > PCh *-qáʔtuʔ • PW *qáʔtu
- (14) PM *[t]qánhan ‘to fish with a hook’ > Mk [ta]<qa>qanhen • PCh *[tʰ]qánhan • PW *[t]qánhan
- (15) PM *-qéj (*-its) ‘custom’ > Ni -kej (-is) • PCh *-qéjʔ (*-is) • PW *-qéj (*-is)
- (16) PM *-qótso(?) ‘node’ > PCh *-qóso-keʔ • PW *-qótso
- (17) PM *-sáqʔâl^h, *-sáqʔâl-its ‘soul, spirit’ > Mk (?) -siʔnqʔal (-its) • Ni -sâkʔâkl<it> • PCh *-sáqʔâl^h, *-sáqʔâl-is
- (18) PM *sláqha(ʔ)j, *sláqhaj-its ‘wild cat’ > Ni sklâkxaj ~ sklâkxaj (-is) • PCh *sʔlâhqajʔ ~ *sʔlâhqâjʔ (*-is) • PW *siláqhâj
- (19) PM *stá-ʔq ‘toothpick cactus (*Stetsonia coryne*)’ > PCh *ʔstá-k • PW *ʔistá-q
- (20) PM *tsáháq (*-its) ‘chajá bird’ > Mk tsahaq (-its) • PCh *sáhák, *sáháq-es
? *sáháq-is • PW *tsáháq
- (21) PM *-ʔa(ʔ)q ‘rope, cord’ > PCh *-ʔák • PW *-t-ʔaq
- (22) PM *ʔaqájeʔk ‘wild honey’ > Ni ʔakâjetf • PW *ʔaqájeq

By contrast, PM *k changed in most positions. In onsets, it became palatalized, yielding PW *kʲ. Likewise, PM *kʰ yielded PW *kʲʰ. This sound change is shared with the contemporary Chorote varieties, though not with Proto-Chorote (see §8.2.2.2 and §8.2.2.5).

- (23) PM *-kat ‘collective of plants’ > Mk -ket • Ni -tʃat / -kat • PCh *-kat • PW *-kʲat (*-at after *k^w, *q)
- (24) PM *[ji]kaʔχ ~ *[ji]kâʔχ ‘to take away’ > Mk [j]<e>kaʔχ • Ni [ji]tʃaʔx • PW *[ji]kʲâʔχ
- (25) PM *káʔlah, *káʔla-ts ‘lizard’ > PCh *káʔlah, *káʔla-s • PW *kʲáʔlah, *kʲáʔla-s

- (26) PM **-kán* (**-its*) ‘testicle’ > Ni *-kân-fij* • PCh **-kân<is>* • PW **-k^ján<is>*
- (27) PM **-ká^s*, **-kás-él* ‘tail’ > Ni *-ká^s*, *-kás-ek* • PCh **-kás* • PW **-k^jás*, **-k^jás-el^h*
- (28) PM **[ji]ká(ʔ)t* ‘to be red’ > PCh **[ʔi]kát* • PW **[ʔi]k^ját*
- (29) PM **[ji]ká^ʔt-APPL* ‘to fall’ > Ni *[ji]ká^ʔt-APPL* • PW **[ni]k^ját-APPL*
- (30) PM **[ji]ká^ʔ* ‘to be torn’ > PCh **[ʔi]ká^ʔ* • PW **[ʔi]k^já^ʔ*
- (31) PM **-kéjá(ʔ)* (f.), **-kéjáts* (m.), **-ké(j)tsá-ts* (pl.) ‘grandchild’ > PCh **-kéjá^ʔ*, **-kéjás*, **-kétsás* • PW **-k^jéjá*, **-k^jéjás*, **-k^jétsás*
- (32) PM **k^jék^jeh* ‘monk parakeet’ > Ni *t^jet^je* • PCh **kék^jeh* • PW **k^jék^je*
- (33) PM **két^jxa-ju^jk*, **két^jxa-jku-j^h* ‘red quebracho’ > Mk *ke^jte-jku-* • Ni *t^je^jxa-juk*, *t^je^jxa-ku-j* • PCh **kéhla-juk* / **kéhla-jku-* • PW **k^jét-juk^w*, **k^jét-k^ju-j^h*
- (34) PM **[ji]kén* ‘to send’ > Mk *[j]<u>kin* • Ni *[ji]t^jfen* • PCh **[ʔi]kén* • PW **[ʔi]k^jén*
- (35) PM **-ke^j(^{*}-j^h)* ‘feminine’ > Mk *-ki^j(-j)* • Ni *-t^je / -ke(-j)* • PCh **-ke^j(^{*}-j^h)* • PW **-k^je(^{*}-j^h)*
- (36) PM **-kilá^ʔ* (**-wot*) ‘elder brother’ > Ni *-t^jek^la^ʔ* / *t^jik^la-* (*-βot*) • PCh **-kilá^ʔ* (**-wot*) • PW **-k^jíla*
- (37) PM **-kitá^ʔ* (**-wot*) ‘elder sister’ > Ni *-t^jita^ʔ* (*-βot*) • PCh **-kitá^ʔ* (**-wot*) • PW **-k^jíta*
- (38) PM **kójXa(ʔ)t* ‘to be heavy’ > PCh **kóhjat-APPL* • PW **k^jójhat*
- (39) PM **kó^jl* ‘locust’ > PCh **kó^jl* • PW **k^jól^h*
- (40) PM **kowä^jx* / **-kówä^jx* ‘hole’ > PCh **kowéh* / **-kóweh* • PW **k^jowex* / **-k^jóweχ*
- (41) PM **ktá^jnih* ‘Chaco tortoise’ > PCh **kitá^jnih* • PW **k^jíta^jnih*
- (42) PM **ktéta(ʔ)* ~ **ktáta(ʔ)* ‘white algarrobo fruit (*Prosopis elata*)’ > PCh **kitéta^ʔ* • PW **k^jítéta*
- (43) PM **[ji]kú^jʔ* ‘to answer’ > Mk *[j]<e>ku^jʔ* • Ni *[ji]ku^jʔ* • PCh **[ʔi]kúhl-APPL* • PW **[ni]k^jú^ʔ*
- (44) PM **[t]kú^jm-APPL* ‘to grab; to work’ > Mk *[te]ku^jm-APPL* • Ni *[t^ja]ku^jm-APPL* • PCh **[ʔi]kúm-APPL* • PW **[t]k^jú(ʔ)m-APPL*
- (45) PM **-kút-ex* ‘to meet’ > Mk *[w(e)]kut-ix-u^jʔ* • Ni *[βa]kut-ef* • PCh **[ʔi]kút-eh* • PW **-k^jút-ex*

- (46) PM **k(ʔ)utsá(ʔ)X₁₂* ~ **k(ʔ)utsé(ʔ)χ* ‘cháguar (*Bromelia hieronymi*)’ > PCh **kʷusáh* • PW **kʷutsáχ*
- (47) PM **kúʔX₁₂* ‘sweat’ > Ni *-ʔβ-kuʔx* • PW **kʷúx^w*
- (48) PM **-(j)ku-j^h* ‘trees (suffix)’ > Mk *-(j)kw-i* • Ni *-ku-j* • PCh **-(j)ku-j^h* • PW **-kʷu-j^h*
- (49) PM **khát* ‘cactus’ > Mk *khat-uʔk* • Ni *kxat* • PCh **kâhát* • PW **kʷâhát*
- (50) PM **-kVnt(ʔ)...* ‘kidney’ > PCh **-kántʷijaaʔ* • PW **-kʷóntowaj*
- (51) PM **kʷalxó* (**-ts*) ‘armadillo sp.’ > Mk *kʷoloʔx* • Ni *kʷakxo* (*-s*) • PCh **kʷihlóʔ* (**-s*) • PW **kʷʷanhóh*
- (52) PM **-kʷáxeʔ* (**-l*) ‘arrow’ > Mk *-qaxiʔ* (*-l*) • Ni *-kʷáxe* • PCh **-kʷáheʔ* (**-l*) • PW **-kʷáhe* (**-l^h*)
- (53) PM **-kʷálfah* ‘spouse’ > Ni *-tʃakfa* • PCh **-kʷélhwah* • PW **-kʷʷéx^wah*
- (54) PM **[ji]kʷán* ‘to stretch out’ > Ni *[ji]tʃan* • PCh **[ʔi]kʷén-APPL* • PW **[hi]kʷʷén*
- (55) PM **[ji]kʷásaʔχ* ~ **[ji]kʷáseʔχ* ‘to divide’ > Mk *[j]<a>kʷesaʔχ* • PCh **[ʔi]kʷésah* • PW **[hi]kʷʷésaχ*
- (56) PM **-kʷínix*, **-kʷínxi-ts* ‘younger brother’ > Mk *-kʷínix* • Ni *-tʃinif* • PCh **-kʷínih*, **-kʷíhni-s* • PW **-kʷʷínix*, **-kʷʷínhi-s*
- (57) PM **-kʷínxáʔ* [?] **-kʷínxáʔ* (**-wot*) ‘younger sister’ > Mk *-kʷínxáʔ* [?] *-kʷínxáʔ* • Ni *-tʃinxá* (*-βot*) • PCh **-kʷíhnáʔ* (**-wot*) • PW **-kʷʷínhá*
- (58) PM **-kʷó*, **-kʷó-l* ‘bottom’ > Ni *-kʷóʔ* (*-k*) • PCh **-kʷóʔ* • PW **-kʷʷó*, **-kʷʷó-l^h*
- (59) PM **-kʷú*, **-kʷú-l* ‘horn, club’ > Mk *-kʷúʔ* (*-l*) • Ni *-kʷúʔ* (*-k*) • PCh **-kʷúʔ* (**-l*) • PW **-kʷʷú*, **-kʷʷú-l^h*
- (60) PM **kʷutX₂₃áʔn*, **kʷutX₂₃án-its* ‘thorn’ > Ni *kʷutxaʔn*, *kʷutxan-is* • PCh **kʷutáʔn*, **kʷután-is* • PW **kʷʷutháʔn*, **kʷʷuthán-is*
- (61) PM **(-)kʷútsaʔχ*, **(-)kʷútsha-ts* ‘old’ > Mk *kʷútsaʔχ*, *kʷútshe-ts* • Ni *kʷútsaʔx*, *kʷútsxa-s* • PCh **-kʷútsah*, **-kʷútsa-s* • PW **-kʷʷútsaχ*
- (62) PM **(-)lká(ʔ)ʔ* ‘nasal mucus, cold’ > Mk *-leke(ʔ)ʔ* • PCh **kéʔ* • PW **kʷéʔ-taχ*, **kʷéʔ-ta-s*
- (63) PM **ɲkʷa* ‘new’ > Mk *iʔnkʷa* • Ni *nitʃa* • PCh **ɲkʷáʔ* • PW **nekʷʷa* ~ **nékʷʷa* ~ **nekʷʷe* ~ **nékʷʷe*
- (64) PM **-qáka* (**-l*) ‘medicine’ > PCh **-qákaʔ* (**-l*) • PW **-qákaʔ* (**-l^h*)

- (65) PM **[ji]qáku?* ‘to distrust’ > Mk *[je]qeku?* • Ni *[ji]kaku* • PCh **[ji]qáku?* • PW **[ji]qák^ju-APPL*
- (66) PM **(-)skä[?]t* ‘mesh’ > Ni *-stfa[?]t* • PW **sikⁱet*
- (67) PM **tkéna(?)X₁₂* ~ **tkána(?)X₁₂*, **tkénX₁₃a-ts* ~ **tkánX₁₃a-ts* ‘precipice; hill, mountain’ > PCh **t^okénah*, **t^okéhna-s* • PW **tkⁱénaχ*, **tkⁱénha-s*
- (68) PM **-t(á)ko?* (**-l*) ‘face’ > Mk *-tko<jek>* • Ni *-tako?* (*-k*) • PCh **-tóko?* (**-l*) • PW **-ták^jo* (**-l^h*)
- (69) PM **-t(á)ko-se?* (**-j^h*) ‘eyebrow’ > Mk *-tko-si?* (**-j*) • PCh **-tóko-se?* (**-j^h*) • PW **-ták^jo-se* (**-j^h*)
- (70) PM **wák’a-ju[?]k*, **wák’a-jku-j^h* ‘guayacán’ > Mk *wek’e-ju[?]k*, *wek’e-jkw-i* • PCh **wák’a-juk*, **wák’a-jku-j^h* • PW **wák^ja-juk^w*, **wák^ja-k^ju-j^h*
- (71) PM **wkína(?)X₁₂*, **wkínX₁₃a-ts* ‘metal’ > PCh **w^okínah*, **w^okínha-s* • PW **kⁱínaχ*, **kⁱínha-ts*
- (72) PM **-xájk’u(?)* (**-l*) ‘egg’ > Ni *-fajk’u* (*-k*) • PCh 3 **hl-éjk’u?* (**-l*) • PW **-t-ík^j’u* (**-l^h*)

In intervocalic clusters composed of a **k* and a guttural fricative, PM **k* failed to palatalize, possibly because it was still syllabified as a coda in that position when the sound change PM **k* > PW **k^j* took place. The outcome is PW **kh*, reflected as *k^h* in most contemporary varieties of Wichí.

- (73) PM **-qák-xi?* ~ **-qak-xí?* ~ **-qák-xij^h* ~ **-qak-xíj^h* ‘lap, calf’ > Mk *-qek-hi?* • PW **-qák-hih*

In codas, PM **k* acquired labialization following back vowels, yielding PW **k^w*. (Proto-Wichí also innovated **k^w* and **k^w* in onsets from PM **kφ* and **kφ[?]*, as in PW **[j]ók^waχ* < PM *[j]ékφa[?]x* ‘to bite’; see §9.1.1.17.)

- (74) PM **φts-u[?]k* ‘palm (*Copernicia alba*)’ > Mk *fits-uk* • Ni *φts-u[?]k* • PCh **hwis<úk>* • PW **x^wits<uk^w>*
- (75) PM **-tú[?]k*, **-tú-j^h* ‘yica bag, load’ > Mk *-tú[?]k*, *-tú-j* • Ni *-tú[?]k* • PCh **-hlúk*, **-hlúj-...* • PW **-túk^w*, **-tú-j<is>*
- (76) PM **-má[?]k*, **-mhá-j^h* ‘powder, flour’ > Ni *-má[?]k*, *-mxá-j* • PCh **-mák* • PW **-mók^w*, **-mhó-j^h*
- (77) PM **-muk*, **-mhu-j^h* ‘feces’ > Mk *-<i>muk*, *-<i>mhu-j* • Ni *(-)<sa>muk*, *(-)<sa>mxu-j* • PCh **-<?já>muk* • PW **-<?já>muk^w*, **-<?já>mhu-j^h*

- (78) PM **néwo*([?])*k* ‘wild manioc’ > Ni *noʃok* • PCh (?) **n^əwák* • PW **néwok^w*
- (79) PM *(-)*niják*, *(-)*nijhá-j^h* ‘rope, cord’ > Mk (-)*nijak*, (-)*nijha-j* • Ni *-niják*, *-nijxá-j* • PCh **niják*, **nijhá-j^h* • PW **niják^w*, **nijhá-j^h*
- (80) PM **ntá*([?])*k* ‘two’ > PCh **nták* • PW **niták^w*
- (81) PM **-p’o’k* ~ **-φ’o’k* ‘fence’ > Ni *-p’o’k* • PCh **-p’ók* • PW **-p’ok^w*
- (82) PM **téwo*([?])*k* [?] **téwá*([?])*k* ‘river’ > Ni *toʃok* ~ *toʃák* • PCh **téwok* ~ **téwák* • PW **téwok^w*
- (83) PM **tlú’k* ‘blind’ > Ni *taklú’k* • PCh **t^əlúk* • PW **tilúk^w*
- (84) PM **-^ətxo’k* ~ **-^ətxó’k* ‘uncle’ > Mk *-txo’k* • Ni *-^ətxo’k* • PCh **-<i>tók* • PW **-<wi>thok^w*
- (85) PM **tsánú’k* ‘duraznillo trees’ > Ni *tsanu’k* • PCh **sinúk* • PW **tsinúk^w*
- (86) PM **tsémłá*([?])*k* ~ **tsámłá*([?])*k* ‘silk floss tree’ > PCh **sémhlák* • PW **tsémłák^w*
- (87) PM **-(j)uk* ‘tree (suffix)’ > Mk *-(j)uk* • Ni *-(j)uk* • PCh **-(j)uk* • PW **-(j)uk^w*
- (88) PM **-wá’k* ‘bad mood’ > Mk *-wak* • Ni *-βá’k* • PCh **-wák* • PW **-wák^w*
- (89) PM **X₁₃ó’k* ‘palo santo (*Bulnesia sarmientoi*)’ > Ni *xo’k* • PCh **hók* • PW **hók^w*
- (90) PM **-X₁₃u’k*, **-X₁₃ú-j^h* ‘firewood’ > Ni *-xu’k*, *-xu-j* • PCh **(?ítâh)-huk* • PW **-huk^w*, **-hú-j<is>*

Following front vowels, PM **k* kept its velar articulation in Wichí: PM **[j]ik* ‘goes away’, **t-xáte’k* ‘her/his head’ > PW **[j]i[k]*, **t-éte[k]*.¹ However, synchronically in Proto-Wichí **[k]* does not contrast either with */q/ (recall that PM */q/ > PW */q/ does not occur after front vowels other than */a/) or with */k^w/ (which is also impossible following front vowels). In this book, we follow Claesson’s (1994) and Nercesian’s (2014) analysis and represent all instances of PW **[k]* as *q*.

¹Nercesian (2014: 49) reports that in the Lower Bermejeño subdialect of Southeastern Wichí /q/ surfaces as [k] in the coda position when preceded by a front vowel as well as in the onset position after a coronal consonant: [jik] ‘goes away’, [tɛːtek] ‘her/his head’, [teːkal] ‘vine’. In the Weenhayek variety, too, /q/ surfaces as [k] in the coda position when preceded by a front vowel: [jik] ‘goes away’, [tɛːtek] ‘her/his head’, though [q] is found in onsets after coronal consonants: [laːteːnːqaç] ‘her/his songs’ (Claesson 1994: 16–17). Since Weenhayek and Lower Bermejeño are on the opposite ends of the Wichí-speaking area (both geographically and linguistically), the allophony pattern whereby /q/ surfaces as [k] in codas following front vowels must be reconstructed for Proto-Wichí. Terraza (2009b: 25) reports only the uvular realization for the Rivadavia subdialect of Southeastern Wichí, even after front vowels ([jiq] ‘goes away’, [tɛːteq] ‘her/his head’), which must be a local innovation.

- (91) PM 1 **h-äk*, 2 **ɬ-äk*, 3 **[j]ik*; CISL **n-äk* ‘to go away’ > Mk 1 *h-ak*, 2 *ɬ-ak*, 3 *ik*; CISL *n-ek* • Ni 1 *x-äk*, 2 *ɬ-äk*, 3 *[j]itf*; CISL *n-atf* • PCh 1 *ʔäk*, 2 **hl-ék* • PW 2 **ɬ-eq*, 3 **[j]iq*; CISL **n-eq*
- (92) PM *(-)*ɸeɬek* ~ **-éɬe* ~ **-eɬé* ‘mortar’ > Mk (-)*fiɬik* • Ni *-ɸeɬetf* • PCh *(-)*hwVhlek* • PW **x^wéteq*
- (93) PM **-témä(°)k* ~ **-támä(°)k*, **-témh-aj^h* ~ **-támh-aj^h* ‘bile’ > PCh **-témeq*, **-tém-aj^h* • PW **-témeq*, **-témh-aj^h*
- (94) PM **wäk* ‘all’ > Mk *we:k* • Ni *-ɸatf* • PCh **-wek* • PW **-weq*
- (95) PM **-xáte°k*, **-xáthe-j^h* ‘head’ > Ni *-fate°tf*, *-fatxe-s* • PCh **-hétek*, **-héthe-j^h* • PW **-ɬ-éteq*, **-ɬ-éthe-j^h*
- (96) PM **-X₁₃úsek* ~ **-X₁₃úsäk* ‘temperance’ > PCh **-húsek* • PW **-húseq*
- (97) PM **ʔaqáje°k* ‘wild honey’ > Ni *ʔakájetf* • PW **ʔaqájeq*
- (98) PM **[t]’ä(°)k* ‘to eat (intr.)’ > Mk *[t]’ek* • PW **[t]’eq*

The fact that PM **k* evolved differently in onsets and codas gave rise to synchronically active alternations in Wichí. As we have seen, following front vowels, stem-final PM **k* yielded PW **q* when syllabified as a coda, and PW **k^j* when syllabified as an onset. The resulting alternation is still productive in varieties such as Lower Bermejeño Wichí (99), where /q/ [k] alternates with /tʃ/ [tʃ], at least if a front vowel precedes it (see also Censabella 2009: 123).²

(99) Lower Bermejeño Wichí (Nercesian 2014)

- a. *-teneq* [-te'něk]
-song
‘song’
- b. *ʔi-wu-tenetf-a* [ʔi.wu'tenětʃa]
3.I-do-song-INCORP
‘s/he prays, praises’
- c. *∅-neq* [něk]
3-walk
‘s/he walks’
- d. *∅-netf-hen* [nětʃ'hěn]
3-walk-PL
‘they walk’

²In varieties such as 'Weenhayek, it fails to occur even after front vowels: 'Wk *ʔi-wo-la-tén-ek-a?* ‘s/he performs her/his song’, *j-ik(°)-eh* ‘s/he goes for it’ (Claesson 1994: 17).

- e. j-iq [ˈjɪk]
 3.I-go_away
 ‘s/he goes away’
- f. j-itf-hila [jɪtʃʰɪla]
 3.I-go_away-FUT
 ‘s/he will go away’
- g. j-itf-hen [jɪtʃʰɛn]
 3.I-go_away-PL
 ‘they go away’
- h. j-itf-hu [ˈjɪtʃʰũ]
 3.I-go_away-APPL
 ‘s/he goes away from inside’
- i. t-ʔeq [tʰek]
 3.T-eat
 ‘s/he eats’
- j. ha-ṇ-t-ʔetf-hi [hãṇtʰeʔtʃʰi]
 NEG-1SG-T-eat-NEG
 ‘I don’t eat’
- k. ʔi-tseq=mathi [nɪtsekmatʰɪ]
 3.I-sew=DP
 ‘s/he sewed’
- l. ṇ-tsetf-eq pujelu [ṇtsetʃʰek pujeˈlu]
 1SG-sew-PTCP skirt
 ‘a skirt sewn by me’

Following front vowels, stem-final PM **k* yielded PW **k^w* when syllabified as a coda, and PW **k^j* when syllabified as an onset. The resulting alternation is still present in varieties such as Lower Bermejeño Wichí (100), where /k^w/ [k^w] alternates with /tʃ/ [tʃ], and ʾWeenhayek (101), where /k^w/ [k] alternates with /k^j/ [k^j] at least in the suffix for woody plants (PW **-uk^w*, **-k^ju-j^h*).

(100) Lower Bermejeño Wichí (Nercesian 2014: 192)

- a. *f^waʔaj-ek^w* (SG), *f^waʔa-tʃe-j* (PL) ‘algarrobo tree’
- b. *tʃeʔj-ek^w* (SG), *tʃeʔ-tʃe-j* (PL) ‘red quebracho tree’
- c. *watʃaj-ek^w* (SG), *watʃa-tʃe-j* (PL) ‘guayacán tree’
- d. *tsuwaj-ek^w* (SG), *tsuwa-tʃe-j* (PL) ‘kiscarolo tree’
- e. *hoj-ek^w* (SG), *ho-tʃe-j* (PL) ‘mistol tree’

- (101) ʷWeenhayek (Claesson 2016)
- a. $x^w aʔáj-uk$ (SG), $x^w aʔá-k^h u-ç$ (PL) ‘algarrobo tree’
 - b. $tʃéʔj-uk$ (SG), $tʃéʔ-k^h u-ç$ (PL) ‘red quebracho tree’

9.1.1.3 PM *x, *χ, and *h

This subsection describes the evolution of the Proto-Mataguayan “guttural” fricatives – PM *x, *χ, and *h – in Wichí. In onsets, PM *x and *h fell together and yielded PW *h, a glottal fricative notable for triggering automatic nasalization in the following vowel in all varieties of Wichí due to a rhinoglottophilia effect (not represented in our broad transcriptions; see Claesson 1994: 13, Teraza 2009b: 51–52, Nercesian 2014: 41–42). It is likely that the merger in question had *χ as its intermediate stage, as discussed in Footnote 3. The examples below show the evolution of PM *x and *h in simplex onsets. (When guttural fricatives occur as parts of complex onsets, they also yield PW *h except after a fricative, where they are deleted; see §9.1.1.16 for examples and details.)

- (102) PM * $-á(-j^h)-xiʔ$ (*-l) ‘mouth’ > Mk $-e<x iʔ>$ (-l) • Ni $-a<f i>$ (-k) • PCh (?) * $-á<a jʔ>$ • PW * $-ʔ-áj-hi$ (*-l^h)
- (103) PM * $-k^h áxeʔ$ (*-l) ‘arrow’ > Mk $-qaxiʔ$ (-l) • Ni $-k^h áxe$ • PCh * $-k^h áheʔ$ (*-l) • PW * $-k^j áhe$ (*-l^h)
- (104) PM * $tsáháq$ (*-its) ‘chajá bird’ > Mk $tsahaq$ (-its) • PCh * $sáhák$, * $sáháq-es$ ~ * $sáháq-is$ • PW * $tsáháq$
- (105) PM * $-xa$, * $-xá-l$ ‘price’ > Ni $-faʔ$ (-k) • PW * $-ha$, $-há-l^h$
- (106) PM * $xéla-ju^k$ ‘tree sp.’ > Ni $ʃéklá-juk$ • PCh * $hél-ek$ • PW * $hél-ek^w$
- (107) PM * $-xä^n(eʔ)$ ‘verbal plural (suffix)’ > Ni $-fa^neʔ$ / $-xa^neʔ$ • PCh * $-he^n(eʔ)$ • PW * $-he^n$
- (108) PM * $xu(?)p$ ‘grass’ > Mk $xup<^el>$ • PCh * $húp$ • PW * hup
- (109) PM * $[ji]X_{13}o(?)$ ~ * $[ji]X_{13}ó(?)$ ‘to go’ > Ni $[ji]xoʔ$ • PCh * $[ʔi]hóʔ$ • PW * $[ji]ho(?)$ ~ * $[ji]hó(?)$
- (110) PM * $X_{13}ó^k$ ‘palo santo (*Bulnesia sarmientoi*)’ > Ni xo^k • PCh * $hók$ • PW * $hók^w$
- (111) PM * $X_{13}on-xa^h$, * $X_{13}on-xáh-aj^h$ ‘night’ > Ni $<xon>fa^x$, $<xon>fa^x-aj$ • PW * $<hon>aχ$, * $<hon>áh-aj^h$
- (112) PM * $X_{13}ó^t$ ‘sandy place’ > Ni xo^t • PCh * $hót$ • PW * $hót$

- (113) PM *-X₁₃u^ʔk, *-X₁₃ú-j^h ‘firewood’ > Ni -xu^ʔk, -xu-j • PCh *(?itâh)-huk • PW *-huk^w, *-hú-j<is>
- (114) PM *-X₁₃úsek ~ *-X₁₃úsäk ‘temperance’ > PCh *-húsek • PW *-húseq
- (115) PM *[ji]X₁₃út ‘to push’ > Ni [ji]xut • PCh *[?i]hút • PW *[ji]hút
- (116) PM *(?a)X₁₃útsa(°)χ, *(?a)X₁₃útsha-ts ‘crested caracara’ > Ni xutsax, xutsxa-s • PCh *(?a)húsah, *(?a)húsa-s • PW *?ahútsaχ, *?ahútsha-s
- (117) PM *?aX₁₃ájé(°)χ ‘mistol fruit’ > Ni ?axâjex • PCh *?ahájah • PW *?ahájajχ
- (118) PM *?aX₁₃áj-u^ʔk, *?aX₁₃áj-ku-j^h ‘mistol tree’ > Ni ?axâj-uk, ?axâj-ku-j • PCh *?aháj-uk, *?aháj-ku-j^h • PW *?aháj-uk^w

In codas, however, PM *x and *χ never change to PW *h. Instead, PM *x and *χ typically merge as PW *χ after unrounded vowels (note that *â is unrounded).

- (119) PM *[j]áte(°)χ ‘to be fat’ > Ni [j]átex • PCh *[j]átah • PW *[j]átax
- (120) PM *[j]ékφa^ʔx ‘to bite’ > Mk [j]ikfe^ʔx • PCh *[j]ókwah • PW *[j]ók^waχ
- (121) PM *[ji]φá^ʔx ‘to cut down’ > Mk fex-inet-ki? ‘ax’ • Ni [ji]φa^ʔf • PCh *[?i]hwáh-APPL • PW *[?i]x^wáχ
- (122) PM *φtsána(°)χ ‘suncho (*Baccharis* sp.)’ > Ni φtsanax • PCh *sánah • PW *x^witsánaχ
- (123) PM *[ji]ka^ʔχ ~ *[ji]ká^ʔχ ‘to take away’ > Mk [j]<e>ka^ʔχ • Ni [ji]tfa^ʔx • PW *[ji]kⁱáχ
- (124) PM *kowá^ʔx / *-kówä^ʔx ‘hole’ > PCh *kowéh / *-kóweh • PW *kⁱowex / *-kⁱóweχ
- (125) PM *[ji]k’ása^ʔχ ~ *[ji]k’áse^ʔχ ‘to divide’ > Mk [j]<a>k’esa^ʔχ • PCh *[?i]k’ésah • PW *[hi]k’ésax
- (126) PM *-k’inix, *-k’inxi-ts ‘younger brother’ > Mk -k’inix • Ni -tfinif • PCh *-k’inih, *-k’ihni-s • PW *-kⁱ’iniχ, *-kⁱ’ihni-s
- (127) PM *k’ú(t)sta(°)χ, *k’ú(t)sta-ts ‘barn owl’ > Ni (?) k’ustax, k’usta-s ‘mockingbird’ • PCh *k’ústah, *k’ústa-s • PW *kⁱ’ústax
- (128) PM *(-)k’útsa^ʔχ, *(-)k’útsha-ts ‘old’ > Mk k’utsa^ʔχ, k’utshes-ts • Ni k’utsa^ʔx, k’utsxa-s • PCh *-k’úsah, *-k’úsa-s • PW *-kⁱ’ústax
- (129) PM *[ji]lé^ʔx ‘to wash’ > Mk [ji]lix-u^ʔ ‘to clean’ • Ni [ji]klé^ʔf • PCh *[?i]léh • PW *[?i]léχ

- (130) PM **(-)lútseʔx*, **(-)lútsxe-ts* ‘bow’ > Ni *k̄lútsef* / *-k̄lútseʔf*, *(-)k̄lútsfe-s* • PCh **(-)lúseh* (**-es*) • PW **(-)lútseχ*, **(-)lútse-s*
- (131) PM **-njiʔx* ‘smell’ > Mk *-njiʔx* • Ni *-niʔf* • PCh **-níh* • PW **-niχ*
- (132) PM **(-)ʔnájiʔx*, **(-)ʔnájx-ajʰ* ‘path’ > Ni *nájiʔf*, *(-)nájif-aj* / *-ʔnájiʔf* • PCh **(-)ʔnájih*, **(-)ʔnáhj-ajʰ* • PW **(-)ʔnájiχ*, **(-)ʔnájh-ajʰ*
- (133) PM **páttseχ* ‘jabiru’ > Ni *pátsex* • PCh **pátsáh* • PW **pátsáχ*
- (134) PM **pitéχ*, **pité-ts* ‘long’ > Ni *pitex*, *pite-s* • PW **pitáχ*, **pité-s*
- (135) PM **sʔwúlaʔχ*, **sʔwúla-ts* ‘anteater’ > Ni *sʔbuk̄lax*, *sʔbuk̄la-s* • PCh **sʔúláh*, **sʔúla-s* • PW **súlaχ*
- (136) PM **-taχ*, **-ta-ts* ‘pseudo-’ > Mk *-taχ*, *-te-ts* • Ni *-tax*, *-ta-s* • PCh **-tah*, **-ta-s* • PW **-taχ*, **-ta-s*
- (137) PM **-táwäʔx*, **-táwxä-ts* ‘(abdominal) cavity’ > Mk *-taweʔx*, *-tawxe-ts* • Ni *-tâpaʔf*, *-tâpaxa-s* • PCh **-tóweh* • PW **-tóweχ*
- (138) PM **tijaʔχ* ‘to shoot, to throw’ > Mk *tijaʔχ* / *-lijaʔχ* • Ni *tijáʔx* • PCh **[ʔi]tijáh* • PW **tijáχ*
- (139) PM **tiłáʔx* ‘to carry on one’s shoulders’ > Mk *tiłoʔx* / *-tiłoʔx* • Ni *tiłáʔx* • PCh **[ʔi]tiłláh* • PW **tiłáχ*
- (140) PM **tiʔx* ‘to dig’ > Mk *ti(ʔ)x-APPL* / *-ti(ʔ)x-APPL* • Ni *tiʔf* • PCh **[ʔi]tił-ijʔ* • PW **tiχ*
- (141) PM **(-)tútse(ʔ)χ* ‘smoke’ > PCh **(-)túsah* • PW **(-)tútsaχ*
- (142) PM **tséχ-APPL* ‘full (river)’ > Ni *tsex-APPL* • PCh **-sáh* • PW **tsáχ-APPL*
- (143) PM **tsóφa-taχ* ‘fruit of a shrub (*Lycium americanum*)’ > Mk *tsofe-taχ* • Ni *tsoφ-tax*
- (144) PM **wátá(ʔ)χ* ‘palo flojo fruit’ > Ni *βátâx* • PW **wátox^w*
- (145) PM **-wăʔx*, **-w(ä)x-ájʰ* ‘burrow; anus’ > Ni *-βaʔf*, *-βaf-ajʰ* • PCh **-wéh* • PW **-wéχ*, *-wh-ájʰ*
- (146) PM **wósiteχ* ‘black algarrobo fruit (*Prosopis nigra*)’ > Mk *ositsaχ* • Ni *βaitsex* • PW **wósotsaχ*
- (147) PM **ʔwá(ʔ)x*, **ʔwáx-ajʰ* ‘stagnant water’ > PCh **hl-<a>ʔwáh* (**-ajʰ*) • PW **ʔwáχ*, **ʔwáh-ajʰ*
- (148) PM **ʔwánXáłáχ*, **ʔwánXáłá-ts* ‘rhea’ > Mk *waatáχ* • Ni *βânxátâx*, *βânxátâ-s* • PCh **ʔwánhlâh*, **ʔwánhlâ-s* • PW **wáʔnłáχ*, **wáʔnłâ-s*

- (149) PM $*(X_{13}on-)xa^\gamma\chi$, $*(X_{13}on-)xáh-aj^h$ ‘night’ > Mk $\langle na \rangle xa^\gamma\chi$ • Ni $\langle xon \rangle fa^\gamma x$, $\langle xon \rangle fa^\gamma x-aj$ • PCh $*\langle ?a \rangle h \langle n \rangle áh \sim * \langle ?á \rangle h \langle n \rangle áh$ • PW $*\langle hon \rangle a\chi$, $*\langle hon \rangle áh-aj^h$
- (150) PM $*xunxáta\chi$ ‘tusca fruit’ > Mk $xunxeta\chi$ • Ni $xunfatax$ • PCh $*?ihnátah$ • PW $*^xnháta\chi$
- (151) PM $*(?a)X_{13}útsa(^\gamma)\chi$, $*(?a)X_{13}útsha-ts$ ‘crested caracara’ > Ni $xutsax$, $xutsxa-s$ • PCh $*(?a)húsah$, $*(?a)húsa-s$ • PW $*?ahútsa\chi$, $*?ahútsha-s$
- (152) PM $*?áwu(C)tse\chi$ ‘peccary’ > Ni $?a\betauktsex \sim ?a\betaoktsex$ • PCh $*?áwusah$ • PW $*?áwutsa\chi$
- (153) PM $*?aX_{13}áje(^\gamma)\chi$ ‘mistol fruit’ > Ni $?axájex$ • PCh $*?ahájah$ • PW $*?ahájax$
- (154) PM $*?á^\gamma lá^\gamma-ta\chi$, $*?á^\gamma lá^\gamma-ta-s$ ‘Argentine boa’ > Ni $?á^\gamma klá^\gamma-tax$, $?á^\gamma klá^\gamma-ta-s$ • PCh $*?á^\gamma lá^\gamma < tah \rangle \sim *?á^\gamma lá^\gamma < tah \rangle, *?á^\gamma lá^\gamma < ta \rangle -s \sim *?á^\gamma lá^\gamma < ta \rangle -s$ • PW $(?) *lá^\gamma < ta \chi \rangle$
- (155) PM $*?ál(V)tse(^\gamma)\chi$, $*?ál(V)tse-ts$ ‘chágua (*Deinacanthon urbanianum*)’ > Ni $?áktsex$, $?áktse-s$ • PCh $*?ál^\gamma sah$, $*?ál^\gamma se-s$ • PW $*?áletsax$
- (156) PM $*?ánhaje\chi$ ‘wild bean (*Capparis retusa*)’ > Mk $anhejax$ • Ni $?ánxajex$ • PCh $*?óhnajah$ • PW $*?ánhjax$
- (157) PM $*-?áx$ ($*-íts$) ‘skin, bark’ > Mk $-?ax$ ($-its$) • Ni $-?áx$ ($-is$) • PCh $*-?áh$, $*-?áh-és$ • PW $*-t-á\chi$, $*-t-áh-és$
- (158) PM $*?itá(^\gamma)\chi$, $*?itá-ts$ ‘fire’ > Ni $?itáx$, $?itá-s$ • PCh $*?itáh$, $*?itá-s$ • PW $*?itá\chi$, $*?itá-s$
- (159) PM $*?uwáte(^\gamma)\chi \stackrel{?}{\sim} *C'uwáte(^\gamma)\chi$ ‘puma’ > Ni $\langle xum \rangle p^\gamma ubatex$ • PCh $*k'uwáhlah$ • PW $*?owátax \stackrel{?}{\sim} *C'owátax$

After PW $*u$, PM $*x$ and $*\chi$ merge as PW $*x^w$ in the coda position.

- (160) PM $*\phiátsu(^\gamma)\chi$, $*\phiátshu-ts$ ‘centipede’ > Ni \phiatsux , $\phiatsxu-s$ • PCh $*(h)wásuh$, $*(h)wásu-s$ • PW $*x^wátsux^w$
- (161) PM $*-?\phi\acute{x}úx$, $*-?\phi\acute{x}ú-ts$ ‘finger’ > Mk $-fux$ • Ni $-?\phi xux$, $-?\phi xu-s$ ‘toe’ • PCh $*-hwu-ké?$ • PW $*-x^wúx^w$, $*-x^wú-s$
- (162) PM $*kú^\gamma X_{12}$ ‘sweat’ > Ni $-^\gamma\beta-ku^\gamma x$ • PW $*k^\gamma úx^w$
- (163) PM $*tux$ ‘to eat (tr.)’ > Mk $tux / -tux$ • Ni tux • PCh $*[?i]túM$ • PW $*tux^w$
- (164) PM $*wV^\gamma\chi$, $*wV^\gamma-ts$ ‘large, fat’ > Ni $-^\gamma\betaá^\gamma x$ • PCh $*wúh$, $*wú-s$ • PW $*wúx^w$, $*wú-s$

The contrast between PM $*x$ and $*\chi$ is maintained after PW $*o$: PM $*\chi$ labializes to PW $*x^w$ in that environment, whereas PM $*x$ changes to PW $*\chi$.

- (165) PM $*n\text{-}\acute{a}\chi$ ‘to end up’ > Mk $n\text{-}a\chi$ • Ni $n\text{-}\acute{a}x$ • PCh $*\langle n\rangle\acute{o}hw\text{-}APPL$ • PW $*\langle n\rangle\acute{o}x^w$
- (166) PM $*p\acute{a}t\acute{o}\chi$ ‘to be deep’ > Ni $[?a]patox$ • PCh $*\text{-}p\acute{i}tohw\langle ij\rangle?$ • PW $*pit\acute{o}x^w$
- (167) PM $*t\acute{o}\chi\text{-}APPL$, $*t\acute{o}\text{-}ts\text{-}APPL$ ‘far’ > Mk $\text{-}to\chi\text{-}ij$, $to\text{-}ts\text{-}ij$ • Ni $tox\text{-}APPL$ • PCh $*t\acute{o}h(w)\text{-}APPL$, $*t\acute{o}\text{-}ts\text{-}APPL$ • PW $*t\acute{o}x^w\text{-}ej^h$
- (168) PM $*\text{-}t'ox \sim *t'\acute{o}x$ ‘aunt’ > Ni $\text{-}t'ox$ • PCh $*\text{-}\langle i\rangle t'\acute{o}h$ • PW $*\text{-}\langle wi\rangle t'ox$

As for PM $*h$ in the coda position, it is usually retained as PW $*h$ > 'Weenha-yek h (except that it is lost if there is a glottalized obstruent in the onset of the same syllable, as discussed in §9.1.1.10).

- (169) PM $*\text{-}\phi ah$, $*\text{-}\phi a\text{-}ts$ ‘companion’ > Mk $\text{-}fe$ ($\text{-}ts$) • Ni $\text{-}\phi a$ ($\text{-}s$) • PCh $*\text{-}hwah$, $*\text{-}hwa\text{-}s$ • PW $*\text{-}x^w ah$, $*\text{-}x^w a\text{-}s$
- (170) PM $*k\acute{a}'lah$, $*k\acute{a}'la\text{-}ts$ ‘lizard’ > PCh $*k\acute{a}'lah$, $*k\acute{a}'la\text{-}s$ • PW $*k\acute{a}'lah$, $*k\acute{a}'la\text{-}s$
- (171) PM $*\text{-}k'\acute{a}l\phi ah$ ‘spouse’ > Ni $\text{-}t\acute{f}ak\phi a$ • PCh $*\text{-}k'\acute{e}lhwah$ • PW $*\text{-}k'\acute{e}x^w ah$
- (172) PM $*m\acute{a}h$ ‘go!’ > Mk ma • Ni $m\acute{a}$ • PCh $*m\acute{a}^h$ • PW $*m\acute{a}h$
- (173) PM $*p\acute{a}'jih$ ‘frog (*Leptodactylus sp.*)’ > PCh $*p\acute{a}'jih$ • PW $*p\acute{a}'jih$
- (174) PM $*Xm\acute{a}woh$ ‘fox’ > PCh $*m\acute{a}wo\text{-}tah$ • PW $*m\acute{a}woh$
- (175) PM $*X_{23}w\acute{e}'lah$, $*X_{23}w\acute{e}'la\text{-}ts$ ‘moon’ > Ni $xi\beta e'la$ ($\text{-}s$) • PCh $*w\acute{e}'lah$, $*w\acute{e}'la\text{-}s$ • PW $*w\acute{e}'lah$
- (176) PM $*?Vl\acute{a}'ah$, $*?Vl\acute{a}'a\text{-}ts$ ‘lesser grison’ > Mk ile • Ni $?ak\acute{l}a'a$ ($\text{-}s$) • PCh $*?el\acute{a}'ah$, $*?el\acute{a}'a\text{-}s \sim *?al\acute{a}'ah$, $*?al\acute{a}'a\text{-}s$ • PW $*?il\acute{a}'ah$

The fact that PM $*x/*\chi$ yielded PW $*h$ in onsets but not in codas gave rise to synchronically active alternations in Wichí, as shown below (see also Claesson 1994: 21).

- (177) Lower Bermejeño Wichí (Nercesian 2014: 191)
- a. $t\text{-}'ox$ (SG), $t\text{-}'oh\text{-}es$ (PL) ‘its skin’
 - b. $niso\chi$ (SG), $niso\text{-}es$ (PL) ‘shoe’

- (178) Rivadavia Wichí (Terraza 2009b: 44)
- a. *-te-t-ʔx* (SG), *-te-t-ʔh-es* (PL) ‘eyelid’
 - b. *nisɔx* (SG), *nisɔh-es* (PL) ‘shoe’
- (179) ʼWeenhayek (Claesson 2016: 95, 271)
- a. *t-ʔáx* (SG), *t-ʔáh-és* (PL) ‘skin’
 - b. *nísáx* (SG), *nísáh-es* (PL) ‘shoe’

Synchronically, PW * χ can occur in the onset position as a result of evolution of PM * $x\chi$ (possibly also PM * χx , PM * xx), as will be shown in §9.1.1.16.

9.1.1.4 Deaffrication of PM * ts > * s in codas

As discussed in §2.1.3, the occurrence of ts is synchronically limited to the onset position in Wichí (Claesson 1994: 15, Terraza 2009b: 42, Nercesian 2014: 50). This restriction arose as a result of a diachronic deaffrication of PM * ts > PW * s in codas (shared with Nivaçle and possibly Chorote).

- (180) PM * $(-)\phi\acute{e}t\acute{a}ʔts$ ‘root’ > Mk *fitets* • Ni *- ϕ etaʔs* • PCh **-hwétus* • PW * $(-)\chi^w\acute{e}tes$
- (181) PM **jijáʔts* ‘dew’ > Mk *ijeʔts* • Ni *jijaʔs* • PCh **ʔijés-tah* • PW **ʔijás*
- (182) PM **-léts* ‘offspring’ > Mk *-lits* • Ni *- $\widehat{k}les$* • PCh **-lés* • PW **-lés*
- (183) PM **-t\acute{a}(ʔ)ts*, **-t\acute{a}ts-él* ‘trunk, base’ > PCh **-tés* (**-el*) • PW **-tes*, **-t\acute{e}ts-el^h*
- (184) PM **-t\acute{a}ts-uʔk*, **-t\acute{a}ts-ku-j^h* ‘trunk’ > Ni *-tats-uk*, *-tas-ku-j* • PCh * $(-)\acute{t}\acute{e}s-uk$, **-t\acute{e}s-ku-j^h*
- (185) PM * $(-)(i)ts$ ‘PL’ > Mk *-(i)ts* • Ni *-(i)s* • PCh * $(-)(i)s$ • PW * $(-)(i)s$
- (186) PM **qatiʔts*, **qatits-él* ‘star’ > Ni *katiʔs* • PCh **qatés*, **qates-él* • PW **qates*, **qat\acute{e}ts-el^h*

In some etyma, the erstwhile presence of an affricate in certain forms is suggested by the synchronically active alternations in Wichí. In the plural forms given below, ts is syllabified as an onset and thus fails to deaffricate, whereas the respective singular forms show s in its place.

- (187) Lower Bermejeño Wichí (Nercesian 2014: 191)
- a. *qates* (SG), *qatets-eł* (PL) ‘star’
 - b. *la-tes* (SG), *la-tets-eł* (PL) ‘its trunk’

(188) Rivadavia Wichí (Terraiza 2009b: 87)

- a. *qates* (SG), *qatets-el* (PL) ‘star’
- b. *-tes* (SG), *-tets-el* (PL) ‘ancestor, trunk’

(189) Weenhayek (Claesson 2016: 316)

- a. *qates* (SG), *qatéts-eł* (PL) ‘star’
- b. *-tes* (SG), *-téts-eł* (PL) ‘fault, origin, cause, ancestor’

9.1.1.5 Deglottalization of preglottalized codas

Most preglottalized codas of Proto-Mataguayan merge with their plain counterparts in Wichí by means of deglottalization. This includes the codas $*^?p$, $*^?t$, $*^?ts$, $*^?k$, $*^?t$, $*^?s$, $*^?x$, $*^?χ$, $*^?l$, and $*^?j$. The coda $*^?l$ not only deglottalizes, but also changes to $*^l^h$, as in (190) and (200), thus merging with $*^l$ (see §9.1.1.13).

- (190) PM $*-á^?l$ ‘light, brightness’ > PCh 3 $*hl-á^?l$ • PW $*-t-á^l^h$
- (191) PM $*-á^?t$, $*-át-its$ ‘drink’ > Ni $-á^?t$, $-át-is$ • PCh $*-át$ (*-es) • PW $*-t-á^t$
- (192) PM $*-á^?s$ ‘son’ > Mk $-a^?s$ • Ni $-á^?s$ • PCh $*-ás$ • PW $*-t-ás$
- (193) PM $*-á^?j$, $*-áj-is$ ‘yica bag’ > Ni $-a^?j$, $-aj-is$ • PCh $*-éj?$ (*-is) • PW $*-t-éj$ (*-is)
- (194) PM $*[ji]fá^?x$ ‘to cut down’ > Mk *fex-inet-ki?* ‘ax’ • Ni $[ji]fá^?f$ • PCh $*[ʔi]h wáh-APPL$ • PW $*[ʔi]x^w áχ$
- (195) PM $*φi^?s$ ‘leech’ > Ni $φi^?s$ • PW $*x^wis$
- (196) PM $*jijá^?ts$ ‘dew’ > Mk *ije^?ts* • Ni *jija^?s* • PCh $*ʔijés-tah$ • PW $*ʔijás$
- (197) PM $*ji^?j á^?X_{12}$ ‘jaguar’ > Ni $ji^?j á^?x$ • PCh $*ʔa^?j á^h$ • PW $*ha^?j áχ$
- (198) PM $*jiná^?t$, $*jinát-its$ ‘water’ > Ni $jiná^?t$, $jinát-is$ • PCh $*ʔi^?nát$ (*-es) • PW $*ʔinát$ (*-es)
- (199) PM $*-ká^?s$, $*-kás-él$ ‘tail’ > Ni $-ká^?s$, $-kás-ek$ • PCh $*-kás$ • PW $*-k^jás$, $*-k^jás-el^h$
- (200) PM $*kó^?l$ ‘locust’ > PCh $*kó^?l$ • PW $*k^jól^h$
- (201) PM $*kowä^?x$ / $*-kówä^?x$ ‘hole’ > PCh $*kowéh$ / $*-kóweh$ • PW $*k^jowex$ / $*-k^jóweχ$
- (202) PM $*[ji]kú^?t$ ‘to answer’ > Mk $[j]<e>ku^?t$ • Ni $[ji]ku^?t$ • PCh $*[ʔi]kúhl-APPL$ • PW $*[ni]k^jút$
- (203) PM $*kú^?X_{12}$ ‘sweat’ > Ni $-β-ku^?x$ • PW $*k^júx^w$

- (204) PM **(-)k'útsa'χ*, **(-)k'útsha-ts* 'old' > Mk *k'utsa'χ*, *k'utshe-ts* • Ni *k'utsa'x*, *k'utsxa-s* • PCh **-k'úсах*, **-k'úsa-s* • PW **-k'útsaχ*
- (205) PM **[ji]lá'j* 'to withstand' > Ni *[ji]klá'j* • PCh **[ji]lá'j-eh* • PW **[ji]lá'j*
- (206) PM **[ji]lé'x* 'to wash' > Mk *[ji]lix-u?* 'to clean' • Ni *[ji]kle'f* • PCh **[ʔi]léh* • PW **[ʔi]léχ*
- (207) PM **lo'p* ~ **lóp*, **lop-its* ~ **lóp-its* 'winter' > Mk *lo'p*, *lop-its* • Ni *klóp*, *klóp-is* • PCh **lóp* • PW **lop* ~ **lóp*
- (208) PM **-tu'k*, **-tú-j^h* 'yica bag, load' > Mk *-tu'k*, *-tú-j* • Ni *-tu'k* • PCh **-hlúk*, **-hlúj-...* • PW **-túk^w*, **-tú-j<is>*
- (209) PM **-má'k*, **-mhá-j^h* 'powder, flour' > Ni *-má'k*, *-mxá-j* • PCh **-mák* • PW **-mók^w*, **-mhó-j^h*
- (210) PM **-nji'x* 'smell' > Mk *-nji'x* • Ni *-ni'f* • PCh **-níh* • PW **-niχ*
- (211) PM **[t]pá'j* 'to be bitter' > Ni *[t'a]pá'j* • PCh **páh-i?* • PW **[t]páj*
- (212) PM **-pás-e't* 'lip' > Ni *-pás<e't>* • PCh **-pás<at>* ~ **-pás<át>* • PW **-pás<et>*
- (213) PM **-p'o'k* ~ **-φ'o'k* 'fence' > Ni *-p'o'k* • PCh **-p'ók* • PW **-p'ok^w*
- (214) PM **-p'o't* 'lid' > Mk *-p'ot<o?>* • Ni *-p'o't* • PCh **-p'ót* • PW **-p'ot*
- (215) PM **qati'ts*, **qatits-él* 'star' > Ni *kati's* • PCh **qatés*, **qates-él* • PW **qates*, **qatés-el^h*
- (216) PM **-sá't* 'vein' > Mk *-<ʔa>sa't* • Ni *-sá't* • PCh **-sát* • PW **-sát*
- (217) PM **(-)skä't* 'mesh' > Ni *-stfa't* • PW **sik'et*
- (218) PM **tá'ł* 'to sprout' > Mk *ta'ł* • Ni *tá'ł* • PCh **tát* • PW **tát*
- (219) PM **-táwä'x*, **-táwxä-ts* '(abdominal) cavity' > Mk *-tawé'x*, *-tawxe-ts* • Ni *-táβa'f*, *-táβxa-s* • PCh **-tóweh* • PW **-tóweχ*
- (220) PM **tija'χ* 'to shoot, to throw' > Mk *tija'χ* / *-łija'χ* • Ni *tijá'x* • PCh **[ʔi]tijâh* • PW **tijâχ*
- (221) PM **tiłá'x* 'to carry on one's shoulders' > Mk *tiło'x* / *-łiło'x* • Ni *tiłá'x* • PCh **[ʔi]tíhlâh* • PW **tiłâχ*
- (222) PM **ti'x* 'to dig' > Mk *ti(?)x-APPL* / *-łi(?)x-APPL* • Ni *ti'f* • PCh **[ʔi]tíh-ij?* • PW **tiχ*
- (223) PM **tlú'k* 'blind' > Ni *taklu'k* • PCh **t'ólúk* • PW **tilúk^w*
- (224) PM **-txo'k* ~ **-txó'k*, **-txóko-wot* 'uncle' > Mk *-txo'k* • Ni *-txo'k*, *-txoko-βot* • PCh **-<i>tók*, **-<i>tóko-wot* • PW **-<wi>thok^w*

- (225) PM **tsänúʔk* ‘duraznillo trees’ > Ni *tsanuʔk* • PCh **sinúk* • PW **tsinúk^w*
- (226) PM **-úʔp*, **-úp-its* ‘nest’ > Mk 3 *ʔ-up* (-its) • Ni *-uʔp*, *-up-is* • PCh **-úp* (*-is) • PW **-ʔ-úp* (*-is)
- (227) PM **-wáʔk* ‘bad mood’ > Mk *-wak* • Ni *-βáʔk* • PCh **-wák* • PW **-wák^w*
- (228) PM **-wáʔx*, **-w(ä)x-áj^h* ‘burrow; anus’ > Ni *-βaʔf*, *-βaf-aj^h* • PCh **-wéh* • PW **-wéχ*, *-wh-áj^h*
- (229) PM **ʔwäleʔk* ‘to walk’ > Mk *-<i>ʔwelki-ʔmet* ‘to limp’ • Ni *βakléʔtf* • PCh **[ʔi]ʔwélek* • PW **ʔweleq*
- (230) PM **-ʔwVʔt* ~ **-ʔwVʔt* ‘to climb’ > Mk *weʔt* • Ni *βáʔt* • PCh **[ʔi]ʔwúʔt* • PW **[t]ʔwuʔt* ~ **[t]ʔwúʔt*
- (231) PM *(*X₁₃on-*)*xaʔχ*, *(*X₁₃on-*)*xáh-aj^h* ‘night’ > Mk *<na>xaʔχ* • Ni *<xon>faʔx*, *<xon>faʔx-aj* • PCh **<ʔa>h<n>áh* ~ **<ʔá>h<n>áh* • PW **<hon>aχ*, **<hon>áh-aj^h*
- (232) PM **-xáteʔk*, **-xáthe-j^h* ‘head’ > Ni *-fateʔtf*, *-fatxe-s* • PCh **-hétek*, **-héhte-j^h* • PW **-ʔ-éteq*, **-ʔ-éthe-j^h*
- (233) PM **X₁₃óʔk* ‘palo santo (*Bulnesia sarmientoi*)’ > Ni *xoʔk* • PCh **hók* • PW **hók^w*
- (234) PM **X₁₃óʔt* ‘sandy place’ > Ni *xoʔt* • PCh **hót* • PW **hót*
- (235) PM **-X₁₃uʔk*, **-X₁₃ú-j^h* ‘firewood’ > Ni *-xuʔk*, *-xu-j* • PCh **(ʔitáh)-huk* • PW **-huk^w*, **-hú-j<is>*
- (236) PM **...X₂₃aʔt* (*-its) ‘earth’ > Ni *<kots>xaʔt*, *<kots>xat-is* • PCh **<ʔa>h<n>át* ~ **<ʔá>h<n>át* (*-es) • PW **<hon>hat*, **<hon>hát-es*

Three preglottalized codas do not merge with their plain counterpart in Wichí: PM **ʔm* and **ʔn* keep their glottalization, whereas **ʔp* is apparently reflected as PW **p* rather than **x^w*, even though only one example is known (242). The Wichí reflex in (241) is irregular in a number of respects and lacks the expected glottalization.

- (237) PM **-áʔm* ‘pronominal formative’ > PCh **-áʔm* • PW **-áʔm*
- (238) PM **[t]kúʔm-APPL* ‘to grab; to work’ > Mk *[te]kuʔm-APPL* • Ni *[tʔa]kuʔm-APPL* • PCh **[ʔi]kúm-APPL* • PW **[t]kʔú(?)m-APPL*
- (239) PM **kʔutX₂₃áʔn*, **kʔutX₂₃án-its* ‘thorn’ > Ni *kʔutxaʔn*, *kʔutxan-is* • PCh **kʔutáʔn*, **kʔután-is* • PW **k^jʔutháʔn*, **k^jʔuthán-is*

- (240) PM *[ji]tá'm 'to defecate' > Mk <i>tá'm • Ni [ji]tá'm • PCh *[ʔi]hlá'm • PW *[t]c'a>tá'm
- (241) PM *stwú'n, *stwún-its 'king vulture' > Ni staβu'n, staβun-is • PCh *ʔstúu'n, *ʔstúun-is • PW *ʔistíwin
- (242) PM *ti'φ 'to suckle' > Mk tu'f/-tu'f • Ni ti'φ • PCh *[ʔi]tíM • PW *tip
- (243) PM *[ji]wo'm 'to throw' > Mk [i]wu'm • PCh *[ʔi]wóm-APPL • PW *[ʔi]wo'm
- (244) PM *-ʔäsχa'n, *-ʔäsχán-its 'meat' > Mk -ʔese'n, -ʔesen-its • Ni -(ʔa)sxa'n, -(ʔa)sxan-is • PCh *-ʔisá'n, *-ʔisán-is • PW *-t-'isa'n, *-t-'isán-is

9.1.1.6 PM *φ', *ʔ' > PW *p', *t'

Another sound change in Wichí, shared with Chorote and Nivaçle but not with Maká, consists of the fortition of the Proto-Mataguayan glottalized fricatives (phonologically possibly analyzable as tautosyllabic sequences of a fricative and a glottal stop) to glottalized stops: PM *φ', *ʔ' > PW *p', *t'. (The sequence *kφ', however, changed to PW *k^w.)

- (245) PM *(-)φ'elxVtséχ, *(-)φ'elxVtsé-ts 'poor' > Mk -f'ilxetsaχ, -f'ilxetsi-ts • PCh *p'ilusáh, *p'ihlusé-s • PW *p'elítsaχ, *p'elítse-s
- (246) PM *t-'áX₂₃te(?) (*-j^h) 'her breast' > Ni t-'axte (-j) • PCh *t-'áhate? (*-j^h) • PW *t-'áte (*-j^h)
- (247) PM *t-'áx 'skin, bark' > Mk t-'ax • Ni t-'áx • PCh *t-'áh • PW *t-'áχ
- (248) PM *t-'äsχa'n, *t-'äsχán-its 'meat' > Mk t-'ese'n, t-'esen-its • Ni t-'asxa'n, t-'asxan-is • PCh *t-'isá'n, *t-'isán-is • PW *t-'isa'n, *t-'isán-is
- (249) PM *t-'í (*-l) 'liquid, juice' > Mk t-'i? (-l) • Ni t-'i? (-k) • PCh *t-'i? (*-l) • PW *t-'í (*-l^h)
- (250) PM *t-'úł 'you urinate' > Mk t-'uł • Ni t-'uł • PCh *<h>t-'úł • PW *<ɬ>t-'úł
- (251) PM *t-'úł(?) 'her/his urine' > Ni t-'uł • PCh *t-'úhlu? • PW *t-'úł

As a result of the sound change PM *ʔ' > (*t)', Proto-Wichí now displays a morphophonological rule which converts the underlying sequence */ʔ+ʔ/ into *t' (rather than t', as in Maká). The rule is no longer entirely productive in Wichí, since the sequence /ʔʔ/ may occur at the root-suffix boundary, as in 'Weenhayek tât-ʔúx^w=eh 'comes from the riverside'.

9.1.1.7 PM *ji-

The sequence PM *ji is usually reflected as PW *ʔi (or PW *hi before a glottalized consonant due to a general glottal dissimilation rule, §9.1.1.8). It is especially common in the high-frequency 3.A/S_A prefix, but also found in some roots, as in (255)–(257).

- (252) PM *[ji]φáʔx ‘to cut down’ > Mk *fex-inet-kiʔ* ‘ax’ • Ni [ji]φaʔf • PCh *ʔi]hwáh-APPL • PW *ʔi]xwáχ
- (253) PM *[ji]φál ‘to tell’ > Mk *n(i)-fel-im* • Ni *n(i)-φak / n(i)-φakl̥* • PCh *ʔi]hwél • PW *ʔi]xwél^h / *ʔi]xwél-
- (254) PM *[ji]φiʔj ~ *ʔi]φiʔj ‘not to be afraid’ > Ni [ji]φiʔj • PCh *ʔi]hwíjʔ • PW *ʔi]xwíj-eh
- (255) PM *jijáʔts ‘dew’ > Mk *ijeʔts* • Ni *jijaʔs* • PCh *ʔijés-tah • PW *ʔijás
- (256) PM *jináʔt, *jinát-its ‘water’ > Ni *jináʔt, jinát-is* • PCh *ʔiʔnát (*-es) • PW *ʔinát (*-es)
- (257) PM *jiʔno, *jiʔnó-l ‘man’ > PCh *ʔiʔnóʔ (*-l) • PW *hiʔno, *hiʔnó-l^h
- (258) PM *ʔi]káʔt ‘to be red’ > PCh *ʔi]káʔt • PW *ʔi]k^jáʔt
- (259) PM *ʔi]kaʔχ ~ *ʔi]káʔχ ‘to take away’ > Mk [j]<e>kaʔχ • Ni [ji]ʔfaʔx • PW *ʔi]k^jáʔχ
- (260) PM *ʔi]káʔ ‘to be torn’ > PCh *ʔi]káʔʔ • PW *ʔi]k^jáʔʔ
- (261) PM *ʔi]kén ‘to send’ > Mk [j]<u>kin • Ni [ji]ʔfen • PCh *ʔi]kén • PW *ʔi]k^jén
- (262) PM *ʔi]kún-han ‘to feed’ > Mk [j]<e>kun-hen • Ni [ji]kun-xan • PCh *ʔi]qúhn-an • PW *ʔi]k^jún-han
- (263) PM *ʔi]láʔj ‘to withstand’ > Ni [ji]kláʔj • PCh *ʔi]láʔj-eh • PW *ʔi]láʔj
- (264) PM *ʔi]lán ‘to kill’ > Mk [ji]lan • Ni [ji]klân • PCh *ʔi]lán • PW *ʔi]lán
- (265) PM *ʔi]láʔ(ʔ)t ‘to feel’ > PCh *ʔi]láʔt-ej^h • PW *ʔi]láʔt
- (266) PM *ʔi]lát ~ *ʔi]láʔt ~ *ʔi]let ~ *ʔi]lét ‘to flee’ > Mk <i>lat ~ <i>lit • Ni [ji]klát • PCh *ʔi]i>lt<an> ~ [ʔi]ʔj>lt<an> • PW *ʔi]lét<han>
- (267) PM *ʔi]léʔx ‘to wash’ > Mk [ji]lix-uʔ ‘to clean’ • Ni [ji]kleʔf • PCh *ʔi]léh • PW *ʔi]léχ
- (268) PM *ʔi]má ‘to sleep’ > Mk [i]maʔ • Ni [ji]máʔ • PCh *ʔi]máʔʔ • PW *ʔi]máʔ

- (269) PM *-náj^h ‘to bathe’ > Ni [βa]naj • PCh *[ʔi]náj-APPL • PW *[ʔi]náj^h
- (270) PM *[ʔi]pén ~ *[ʔi]pǎn ‘to cook’ > PCh *[ʔi]pén • PW *[ʔi]pén
- (271) PM *[ji]-tXá(?)t ‘to throw, to put’ > PCh *[ʔi]tát-APPL • PW *[ʔi]thát
- (272) PM *[ʔi]tsá(?)j ‘to spill’ > PCh *[ʔi]sáj? • PW *[ʔi]tsáj
- (273) PM *[ji]wo^ʔm ‘to throw’ > Mk [i]wu^ʔm • PCh *[ʔi]wóm-APPL • PW
*[ʔi]wo^ʔm
- (274) PM *[ji]wún ‘to burn (tr.)’ > PCh *[ʔi]wún • PW *[ʔi]wún

When followed by a glottalized consonant and a low vowel (PM *a or *á, but not *ä), PM *ji > *ʔi changed to *ʔa > PW *ha word-initially (§9.1.2.4).

- (275) PM *ji^ʔjá^ʔX₁₂ ‘jaguar’ > Ni ji^ʔjá^ʔx • PCh *ʔa^ʔjá^h • PW *ha^ʔjá^ʔ
- (276) PM *ji^ʔlá^ʔ, *ji^ʔlá^ʔ-j^h ‘tree’ > Ni ji^ʔklá^ʔ(-j) • PCh *ʔa^ʔlá^ʔ(*-j^h) • PW *ha^ʔlá^ʔ,
*ha^ʔlá^ʔ-j^h
- (277) PM *jit^ʔá^ʔ, *jit^ʔá^ʔ-l ‘vulture’ > Ni jit^ʔá^ʔ(-k) • PCh *ʔat^ʔá^ʔ(*-l) • PW *hat^ʔá^ʔ(?)

However, PM *ji is retained as PW *ji when followed by a uvular consonant or *h, as evident synchronically from alternations in the third-person prefix (Nercesian 2014: 241–242).³ It is likely that the vowel *i in such cases had a somewhat lowered allophone (for example, [ɪ]), conditioned by a following uvular/glottal, thus bleeding the sound change PM *ji > PW *ʔi (i.e., *jiq > *j[ɪ]q > *jiq).

- (278) PM *[ji]qáku? ‘to distrust’ > Mk [je]qeku? • Ni [ji]kaku • PCh *[ji]qáku?
• PW *[ji]qák^ʔu-APPL
- (279) PM *[ji]X₁₃án-ex ‘to know’ > PCh *<[j]a>hán-eh • PW *[ji]hán-ex
- (280) PM *[ji]X₁₃o(?) ~ *[ji]X₁₃ó(?) ‘to go’ > Ni [ji]xo? • PCh *[ʔi]hó? • PW
*[ji]ho(?) ~ *[ji]hó(?)
- (281) PM *[ji]X₁₃út ‘to push’ > Ni [ji]xut • PCh *[ʔi]hút • PW *[ji]hút

In the latter case, Weenhayek consistently reflects PW *ji- as ja- (see §8.2.3.6 for a similar outcome in Iyojwa’aja). In Lower Bermejeño, the sequence /ji/ is articulated as [jɪ]. In the Rivadavia variety of Southeastern Wichí, verbs that took *ji- in Proto-Wichí may now take either ja- (if the agent acts with low intensity) or ʔi- (if the agent acts with high intensity), according to Terraza (2009b: 135). For more details, see §9.2.2.5.

³In fact, the fact that PW *h patterns with uvulars suggests that *h in onsets goes back to a pre-Proto-Wichí uvular fricative. However, in Proto-Wichí *χ and *h clearly contrasted in onsets due to the sound change PM *xχ > PW *χ, discussed in §9.1.1.16. Therefore, the change *χ > *h must have been complete by the Proto-Wichí stage.

9.1.1.8 Glottal dissimilation affecting glottal stops

A dissimilatory process has transformed PM *ʔ (and the instances of *ʔ originating from PM *j by means of the sound change PM *ji > *ʔi word-initially) into PW *h if the next syllable contained a glottalized consonant. Although unique to Wichí within Mataguayan, a similar process has been identified as a defining innovation of the Guaranian subbranch of the Tupi–Guaranian branch (Tupian family), where *ʔVʔ evolved into hVʔ (Carvalho 2022). Yet another language where h was inserted in erstwhile vowel-initial words that contain a glottalized (ejective) consonant is Cuzco Quechua, though in that variety the glottalized trigger need not be located in an adjacent syllable (Parker 2013: 170).

- (282) PM *jiʔjãʔX₁₂ ‘jaguar’ > Ni jiʔjãʔx • PCh *ʔaʔjáʔh • PW *haʔjãʔx
- (283) PM *jitʔáʔ, *jitʔá-l ‘vulture’ > Ni jitʔáʔ(-k) • PCh *ʔatʔáʔ(*-l) • PW *hatʔáʔ(?)
- (284) PM *jiʔláʔ, *jiʔlá-jʰ ‘tree’ > Ni jiʔkláʔ(-j) • PCh *ʔaʔláʔ(*-jʰ) • PW *haʔlá, *haʔlá-jʰ
- (285) PM *[ji]kʔán ‘to stretch out’ > Ni [ji]tʃʔan • PCh *[ʔi]kʔén-APPL • PW *[hi]kʔén
- (286) PM *[ji]kʔásaʔx ~ *[ji]kʔéseʔx ‘to divide’ > Mk [j]<a>kʔesaʔx • PCh *[ʔi]kʔésah • PW *[hi]kʔésax
- (287) PM *[ji]pʔo(?) ~ *[ji]ʃʔo(?) ~ *[ji]pʔó(?) ~ *[ji]ʃʔó(?) ‘to cover’ > Ni [ji]pʔo • PCh *[ʔi]pʔó-APPL • PW *[hi]pʔó-APPL
- (288) PM *[ji](t)sʔu(?) ‘to suck’ > PCh *[ʔi]tsʔú-APPL • PW *[hi]tsʔu(?)
- (289) PM *[ji]ʔwán ‘to see’ > Mk [ji]ʔwen • Ni [ji]ʔβan • PCh *[ʔi]ʔwén • PW *[hi]ʔwén
- (290) PM *ʔatʔeʔ(?)t)s ~ *ʔatʔäʔ(?)t)s ‘aloja drink’ > PCh *ʔatʔés • PW *hatʔés
- (291) PM *jiʔno, *jiʔnó-l ‘man’ > PCh *ʔiʔnóʔ(*-l) • PW *hiʔno, *hiʔnó-lʰ

The glottal dissimilation rule has resulted in synchronically active alternations in Wichí. For example, in the Lower Bermejeño dialect the second-person possessive index usually surfaces as ʔa- before consonants, but if the stem starts with a glottalized consonant, the allomorph ha- shows up instead (292).

- (292) Lower Bermejeño Wichí (Nercesian 2014: 163–164)
- a. ha-ʔnojiʔ ‘your path’
 - b. ha-tʔalax ‘your pillow’
 - c. ha-tʔate ‘your breast’

- d. *ha-tʃeʃ^wa* ‘your spouse’
- e. *ha-tʃute* ‘your ear’
- f. *ha-²wet* ‘your place’
- g. *ha-²wu* ‘your neck’
compare:
- h. *?a-ʃ^wtʃa* ‘your father’
- i. *?a-ɲes* ‘your nose’
- j. *?a-p^{hi}i* ‘your pocket’
- k. *?a-tset* ‘your walking stick’

Similarly, the prefix found in transitive verbs with a third-person subject take the prefix *?i-* before consonants in Lower Bermejeño (*ji-* before uvulars and glottals), but if the stem starts with a glottalized consonant, the allomorph *hi-* shows up instead (293).

(293) Lower Bermejeño Wichí (Nercesian 2014: 241–242)

- a. *hi-p^{at}tsen* ‘s/he forgives’
- b. *hi-p^{aq}* ‘s/he dyes’
- c. *hi-p^{ethat}* ‘s/he forgets’
- d. *hi-p^u* ‘s/he burns’
- e. *hi-ts^{ef^wi-hu}* ‘s/he twists’
- f. *hi-ts^{if^win}* ‘s/he pinches’
- g. *hi-tʃ^{esaχ}* ‘s/he divides’
- h. *hi-²wen* ‘s/he sees’
compare:
- i. *?i-jo-jeχ* ‘s/he drinks’
- j. *?i-leχ* ‘s/he washes’
- k. *?i-lon* ‘s/he kills’
- l. *?i-t^hat-^hu* ‘s/he puts inside’
- m. *?i-tʃ^{ef^wen}* ‘s/he teaches’
- n. *?i-tʃoχ* ‘s/he takes away’
- o. *ji-haneχ* ‘s/he knows’
- p. *ji-hemin* ‘s/he likes’
- q. *ji-hon* ‘s/he follows’
- r. *ji-qontʃi* ‘s/he destroys’
- s. *ji-qun* ‘s/he plays’

9.1.1.9 Glottal dissimilation affecting glottalized consonants

When two consecutive syllables have glottalized consonants as their onsets in PM, Wichí deglottalizes the onset of the first syllable in a development shared with Chorote (§8.1.1.8). Example (295) shows further irregularities regarding the place of articulation of the dissimilating consonants.

- (294) PM **k'ék'eh* 'monk parakeet' > Ni *tʃ'etʃ'e* • PCh **kék'eh* • PW **k'ék'j'e*
- (295) PM **ts'áts'ih*, **ts'áts'i-l* 'rufous hornero' > Mk *ts'its'i (-l)* • Ni *ts'ats'i (-k)*
• PCh **sát'ih* • PW **táts'i*
- (296) PM **t-á(j)k'i-l* 'its saliva (PL)' > Ni *t-ʔatʃ'i-k* • PCh **t-áj'k'i<l><is>* • PW **t-ák'i<lʰ>*
- (297) PM *ʔ[*j*]óp'ale(?) 'to hiccup' > Ni [*j*]op'akle / -ʔop'akle 'to choke' • PCh **[j]óp'ale?* • PW **[j]óp'le*

9.1.1.10 *h-loss after glottalized stops and affricates

In Wichí, word-final PM **h* is lost word-finally if the onset of the syllable in question is a glottalized stop or affricate (as well as in one unclear exception shown in (301), where the loss of **h* may have something to do with the sequence *-*mʔ*-).

- (298) PM **k'ék'eh* 'monk parakeet' > Ni *tʃ'etʃ'e* • PCh **kék'eh* • PW **k'ék'j'e*
- (299) PM **ts'áts'ih*, **ts'áts'i-l* 'rufous hornero' > Mk *ts'its'i (-l)* • Ni *ts'ats'i (-k)*
• PCh **sát'ih* • PW **táts'i*
- (300) PM **wóp'ih* ~ **wóʔ'ih* [?] ~ **móp'ih* ~ **móʔ'ih* 'white egret' > PCh **wóp'ih*
• PW **móp'i*
- (301) PM **ʔámʔáh*, **ʔámʔá-ts* 'rat' > Ni *ʔamʔá (-s)* • PCh **ʔámʔah* ~ **ʔámʔáh*,
**ʔámʔa-s* ~ **ʔámʔá-s* • PW **ʔáma*

The same kind of sound change must underlie PW **ník'j'u* 'black-legged seriema (*Chunga burmeisteri*)', whose Chorote counterparts (Ijw *nók'j'u* /*núk'i*uh/, Mj *hón(i)ʔi* ~ *hóniʔu* /*hún(i)k'*uh/) point to a word-final **h*. However, the Chorote and Wichí forms show no regular correspondences and are probably related by horizontal transmission rather than by cognation.

9.1.1.11 **h*-insertion after word-final accented vowels

In Proto-Wichí, polysyllabic words cannot end in a long vowel. We account for this restriction by positing a process whereby a PW **h* was inserted word-finally whenever the Proto-Mataguyan etymon ended in an accented vowel (> PW long vowel; see §9.1.3.1 on vowel length in Wichí).

- (302) PM **k'alxó* (**-ts*) 'armadillo sp.' > Mk *k'olo'x* • Ni *k'akxo* (-s) • PCh **k'ihló?* (**-s*) • PW **k^j'anhóh*
- (303) PM **mijó* (**-l*) 'savannah hawk' > Mk *mijo* (-l) • Ni *mijo* (-k) • PCh **mijó?* (**-l*) • PW **mijóh*

This sound change does not apply to monosyllabic stems.

- (304) PM **t-ó* (**-l*) 'his penis' > Ni *t-o?* (-k) • PCh **hl-ó?* (**-l*) • PW **t-ó* (**-l^h*)
- (305) PM **t-w(t)s'é* (**-l*) 'his/her belly' > Ni *ta-βts'e* (-k) • PCh **h²-ts'é?* (**-l*) • PW **t-ts'é* (**-l^h*)
- (306) PM **t-'í* (**-l*) 'liquid, juice' > Mk *t-'i?* (-l) • Ni *t-'i?* (-k) • PCh **t-'í?* (**-l*) • PW **t-'í* (**-l^h*)

9.1.1.12 PM **-nV* > PW **-²nVh*

The word-final sequence **-nV* changes to **-²nVh* in Wichí.

- (307) PM **látseni(?)* 'chañar fruit' > PCh **létseni?* • PW **létse²nih*
- (308) PM **sténi(?)* 'white quebracho' > Mk *sitin-u²k* • PCh **²sténi?* • PW **²isté²nih*
- (309) PM **tsóna(?)* 'red brocket' > PCh **tsóna?* • PW **tsó²nah*
- (310) PM **wóna(?)* 'bala wasp honey; hat' > PCh **wóna?* • PW **wó²nah*

As a result of this sound change, words ending in **-nV* are practically non-existent in the lexicon of Wichí. One exception is PW **qáno* (**-l^h*) 'needle', but this is a likely borrowing from Guaicuruan: compare Toba-Qom (Cerriteño dialect) *qana* 'needle' (Messineo 2009: 263).

9.1.1.13 Destiny of word-final PM *l and *ʔ

Word-finally, PM *l and *ʔ yield PW *l^h (this can be analyzed as a consonant cluster or a marginal phoneme of Proto-Wichí, alongside PW *j^h).

- (311) PM *-áʔl ‘light, brightness’ > PCh 3 *hl-áʔl • PW *-t-ál^h
- (312) PM *-ʔá(ʔ)l, 3 *ʔ[j]i(ʔ)l ‘to die’ > PCh *ʔ[j]á(ʔ)l • PW *ʔ[j]il^h
- (313) PM *-áʔpil ‘to return thither’ > Mk [w]apil • Ni [β]apek • PCh *[j]áʔpil • PW *[j]áʔpil^h
- (314) PM *[ji]ʔál ‘to tell’ > Mk n(i)-fel-im • Ni n(i)-ʔak / n(i)-ʔakíl- • PCh *[ʔi]hwél • PW *[ʔi]x^wél^h / *[ʔi]x^wél-
- (315) PM *kóʔl ‘locust’ > PCh *kóʔl • PW *kól^h
- (316) PM *-(é)l ‘PL’ > Mk -l • Ni -(e)k • PCh *-(é)l • PW *-(é)l^h
- (317) PM *[t]ʔil ‘to return hither’ > Mk [t(e)]pil • Ni [t(a)]pik ~ [t(a)]pek • PW *[t]píl^h
- (318) PM *(-)X₂₃ʔél ‘shadow’ > Ni xpek • PCh *-pél • PW *hpél^h / *-hpe^h

9.1.1.14 Loss of posttonic PM *ʔ word-finally

PM *ʔ is lost word-finally in Wichí after short vowels if a long vowel (§9.1.3.1) occurs somewhere to the left in the same word.⁴

- (319) PM *t-á(-j^h)-xiʔ (*-l) ‘her/his mouth’ > Mk t-e<xiʔ> (-l) • Ni t-a<fi> (-k) • PCh (?) *hl-á<ajʔ> • PW t-áj-hi (*-l^h)
- (320) PM *t-áʔseʔ ‘her/his daughter’ > Mk t-asiʔ • Ni t-áse • PCh *hl-áʔseʔ • PW *t-áse
- (321) PM *-ʔájXoʔ (*-l) ‘coal’ > Ni -ʔajxoʔ (-k) • PW *-x^wijho (*-l^h)
- (322) PM *-k’áxeʔ (*-l) ‘arrow’ > Mk -qaxiʔ (-l) • Ni -k’áxe • PCh *-k’áxeʔ (*-l) • PW *-k^j’áhe (*-l^h)

⁴Note that the only source that systematically reflects the contrast between ʔ-final and vowel-final words is Nercesian (2014) in her description of Lower Bermejeño Wichí. Braunstein (2009) does not systematically document the distinction in the same variety. In all other varieties of Wichí, the contrast is lost word-finally: in ’Weenhayek (Claesson 1994: 25) and in the Rivadavia subdialect of Southeastern Wichí (Terraza 2009b: 31–34), [ʔ] is automatically inserted in the clause-final position after stressed vowels (in ’Weenhayek also after j and unstressed vowels), whereas in Vejoz ʔ is not reported in the word-final position at all (Viñas Urquiza 1974, Gutiérrez & Osornio 2015).

- (323) PM **-k'inχá?* [?] **-k'inxá?* (**-wot*) 'younger sister' > Mk *-k'inχa?* [?] *-k'inxa?*
 • Ni *-tfinxá* (*-βot*) • PCh **-k'ihná?* (**-wot*) • PW **-k^jinhá*
- (324) PM **[?]njánxte?* 'tapeti rabbit, cavy' > Mk *nijaxti?* • Ni *nánxate* • PCh
**[?]náhâte?* • PW **xⁿáte*

The word-final deglottalization in Wichí is similar to an analogous process known from Nivaçle, but must have occurred independently. Note that it was fed by accent retraction in words with postpeninitial PM accent, a process unique to Wichí and Iyojwa'aja'; in this case deglottalization occurs in Wichí, but not in Nivaçle, leading to different outcomes. Note that the Nivaçle cognates in (325)–(327) have stress in the final syllable, which is why deglottalization fails to occur in them (Analia Gutiérrez, 2023, personal communication).

- (325) PM **-kilá?* (**-wot*) 'elder brother' > Ni *-tfeklä?* / *tíklä-* (*-βot*) • PCh
-kilá?* (-wot*) • PW **-k^jíla*
- (326) PM **-kitá?* (**-wot*) 'elder sister' > Ni *-tfitá?* (*-βot*) • PCh **-kitá?* (**-wot*) •
 PW **-k^jíta*
- (327) PM **-qalá?* (**-j^h*) 'leg' > Ni *-kaklá?* (*-j*) • PCh **-qa[?]lá?* ~ **-qá[?]lá?* (**-j^h*) •
 PW **-qálá?* (**-j^h*)

9.1.1.15 Syllabic consonants

The Proto-Mataguayan consonants **ŋ* and **ʈ* are reflected in Wichí as PW **ni*, **ta*. This is seen in the allomorphy pattern of the 3.NEG.IRR prefix (PW **ni-* before supraglottal consonants, PW **n-* before vowels or **ʔ*), of the T-class verbal prefix (PW **ta-* word-initially before supraglottal consonants, PW **t-* elsewhere), and of the homophonous third-person prefix found in a closed set of terms for body parts.

- (328) 'Weenhayek (Claesson 2016: 62, 76, 82, 99, 349, 375–376)
- ní-t-ahuj-a?* 'lest s/he speak'
 - ní-[?]nom-a?* 'lest s/he wake up'
 - ∅-ta-qásit* 's/he stands up'
 - ∅-ta-qátin* 's/he dances'
 - ta-kej?* 'her/his hand'
 - ta-qálá?* 'her/his leg'
 - ta-te?* 'her/his eye'

- (329) Lower Bermejeño Wichí (Nercesian 2014: 239, 289, 320–321)⁵
- ni-tamtfoj-a* ‘lest it dry’
 - ni-^ʔwats^han-a* ‘lest it be green’
 - ni-f^wit-a* ‘lest s/he reach’
 - ∅-ta-qásit* ‘s/he stands up’
 - ∅-ta-qatin* ‘s/he jumps’

9.1.1.16 Consonant + guttural fricative

Proto-Mataguayan clusters of the shape */Cx/, */Cχ/, */Ch/ largely yield aspirated consonants or voiceless nasals (phonologically */Ch/) except if the consonant is a fricative, in which case the subsequent guttural fricative is lost.

The examples below show the evolution of PM clusters of the shape */Cx/, */Cχ/, */Ch/ whose first element is not a fricative or the lateral approximant */l/. This includes the word-final cluster */jh/ (represented as *j^h in this book), which is generally preserved in Proto-Wichí except that after the vowel *i it is simplified to *h (355). (333) and (341) show vowel epenthesis, presumably due to the fact that the consonant cluster occurs word-initially. In (353) and (361), vowel syncope (§9.1.2) probably had originally resulted in triconsonantal clusters of the shape *ChC, which were subsequently simplified to *CC. The reflex in (345) is entirely irregular due to contamination with that of PM *p^ás(-e^ʔ) ‘lip’.

- (330) PM *-(á)j^h ‘PL’ > Mk -(e)j • Ni -(a)j • PCh *-(á)j^h • PW *-(á)j^h
- (331) PM *-ej^h ‘APPL:DISTAL’ > Mk -ij • Ni -ej • PCh *-ej^h • PW *-ej^h
- (332) PM **φajXo?*, **φajXó-l* / **-φájXo?* (*-l) ‘coal’ > Ni (-)φajxo? (-k) • PCh **hwa(h)jo-* • PW **x^wijho(?)*, **x^wijhó-l^h* / **-x^wijho* (*-l^h)
- (333) PM **khát* ‘cactus’ > Mk *khat-u^ʔk* • Ni *kxat* • PCh **káhát* • PW **kⁱáhát*
- (334) PM **kójXa(?)t* ‘to be heavy’ > PCh **kóhjat-APPL* • PW **kⁱójhat*
- (335) PM **-kⁱínxá?* [?] **-kⁱínxá?* (*-wot) ‘younger sister’ > Mk *-kⁱínxá?* [?] *-kⁱínxá?*
• Ni *-t^finxá* (-βot) • PCh **-kⁱihná?* (*-wot) • PW **-kⁱínhá*

⁵In Lower Bermejeño, the Proto-Wichí third-person prefix found in a closed set of terms for body parts has been reanalyzed as a part of the stem, and is now always preceded by an overt person index. Since it never occurs word-initially, it does not have a moraic allomorph: *ŋ-t-k^wej* ‘my hand’, *ʔa-t-k^wej* ‘your hand’, *la-t-k^wej* ‘her/his hand’, *ʔa-t-k^wej* ‘our hand’, *to-t-k^wej* ‘one’s hand’ (Nercesian 2014: 147). This is obviously an innovation when compared to the situation in Weenhayek, where the prefix in question shows up only in the third person: *ʔó-kej?* ‘my hand’, *ʔa-kej?* ‘your hand’, *ta-kej?* ‘her/his hand’, *ʔnó-kej?* ‘one’s hand’.

- (336) PM **k'utX₂₃á'n*, **k'utX₂₃án-its* 'thorn' > Ni *k'utxa'n*, *k'utxan-is* • PCh **k'utá'n*, **k'után-is* • PW **k^j'uthá'n*, **k^j'uthán-is*
- (337) PM **łútsX₂₃a(?)* (*-jek) 'girl' > Ni *łutsxa (-jetf)* • PCh **hlúsa?* (*-jek) • PW **łútsha*
- (338) PM **-mhá-j^h* 'powders, flours' > Ni *mxá-j* • PW **-mhó-j^h*
- (339) PM **(-)níjhá-j^h* 'ropes, cords' > Mk *(-)nijha-j* • Ni *-nijxá-j* • PCh **níjhá-j^h* • PW **níjhá-j^h*
- (340) PM **-nxa-* ~ **-nxá-* 'nose' > Mk *-nxe-* • Ni *-nfa-* • PCh **-hná<tVwoh>* • PW **-nh<us>*
- (341) PM **ŋ-xáte?* (*-l) [?] ~ **ŋ-xáti?* 'dream, sleepiness' > Mk *-nixati?* (-l) • Ni *nxáte (-k)* • PCh **?ihnáti?* • PW **naháti*
- (342) PM **(-)'nájx-aj^h* 'paths' > Ni *(-)nájf-aj* • PCh **(-)'náhj-aj^h* • PW **(-)'nájh-aj^h*
- (343) PM **kpénX₁₃a-ts* ~ **kpänX₁₃a-ts* 'orphans' > PCh **kpéhna-s* • PW **k'pénha-s*
- (344) PM **phá'm* 'up' > Mk *-pha'm* • PCh **p'há'm* • PW **-phá / *phám-*
- (345) PM **-pxúse?* (*-j^h) 'beard' > Mk *-<a>pxusi?* (-j) • Ni *-páse (-j)* • PCh **-púse?* (*-j^h) • PW **-páse* (*-j^h)
- (346) PM **[t]qánhan* 'to fish with a hook' > Mk *[ta]<qa>qanhen* • PCh **[t^ə]qáhnan* • PW **[t]qánhan*
- (347) PM **sláqha(?)j*, **sláqhaj-its* 'wild cat' > Ni *sklākxaj* ~ *sklākxaj (-is)* • PCh **s'láhqaj?* ~ **s'láhqáj?* (*-is) • PW **siláqhâj*
- (348) PM **-témh-aj^h* ~ **-támh-aj^h* 'bile.PL' > PCh **-témh-aj^h* • PW **-témh-aj^h*
- (349) PM **-^ətxo'k* ~ **-^ətxó'k*, **-^ətxóko-wot* 'uncle' > Mk *-txo'k* • Ni *-^ətxo'k*, *-^ətxoko-βot* • PCh **-<i>tók*, **-<i>tóko-wot* • PW **-<wi>thok^w*
- (350) PM **[ji]-tXá(?)t* 'to throw, to put' > PCh **[ʔi]tát-APPL* • PW **[ʔi]thát*
- (351) PM **[t]wha'já-^əj* 'to marry' > Mk *[te]whe'^əje-j* • Ni *[t]xa'^əja-^əj* • PCh **[t^ə]hwa'^əjé<j>* • PW **[t]wháje<j>*
- (352) PM **wátshan* ~ **wátšxan* 'to be healthy, alive' > Ni *βatsxan* • PCh **wása'n* • PW **wátshan*
- (353) PM **wánXátláχ*, **wánXátlá-ts* 'rhea' > Mk *waatlaχ* • Ni *βánxátláχ*, *βánxátlá-s* • PCh **wánhlâh*, **wánhlâ-s* • PW **wá'^ənłáχ*, **wá'^ənłâ-s*
- (354) PM **-xáthe-j^h* 'heads' > Ni *-fatxe-s* • PCh **-héhte-j^h* • PW **-ł-éthe-j^h*

- (355) PM *-xíj^h ‘recipient’ > Mk -xij • Ni -fij / -xij • PW *-híh
- (356) PM *xunxátaχ ‘tusca fruit’ > Mk xunxetaχ • Ni xunfatax • PCh *ʔihnátah
• PW **nhátax
- (357) PM *xunxáta-(ju)ʔk ‘tusca tree’ > Mk xunxete-ʔk • Ni xunfata-juk • PCh
*ʔihnáta-k • PW **nháte-q
- (358) PM *(ʔa)X₁₃útsha-ts ‘crested caracaras’ > Ni xutsxa-s • PCh *(ʔa)húsa-s •
PW *ʔahútsha-s
- (359) PM *ʔatsXa(ʔ), *ʔatsXá-l ‘dorado’ > PCh *ʔasáʔ (*-l) • PW *ʔatsha(ʔ),
*ʔatshá-l^h
- (360) PM *ʔánhajex ‘wild bean (*Capparis retusa*)’ > Mk anhejaχ • Ni ʔánxajex •
PCh *ʔóhnajah • PW *ʔánhjaχ
- (361) PM *-ʔóʔthale(ʔ) ~ *-ʔóʔthále(ʔ) ‘heart’ > PCh *-ʔóhtaleʔ ~ *-ʔóhtáleʔ • PW
*-t-ʔótle

Interestingly, the clusters involving PM *l as the first element did not yield PW **lh, as one could expect, but rather *nh, possibly as a rhinoglottophilia effect (see §9.2.1.3 on rhinoglottophilia in Wichí).

- (362) PM *-fólXaʔn ‘ankle’ > PCh *-hwóhlaʔn • PW *-xʷónhaʔn
- (363) PM *kʰalxó (*-ts) ‘armadillo sp.’ > Mk kʰoloʔx • Ni kʰakxo (-s) • PCh
kʰihlóʔ (-s) • PW *kʰʷanhóh
- (364) PM *[ji]lXón ‘to roast’ > Ni [ji]kxon • PCh *ʔi]hlón • PW *[t]nhón

The latter sound change has resulted in a synchronically active alternation in Wichí, where the underlying cluster /lh/ (in some analyses, /l̥h/) surfaces as [ɲ].⁶

- (365) ʷWeenhayek (Claesson 2016: 337–338, 454, 516)
- ni-táx^wel-ex* ‘s/he is known’ → *ʔi-táx^wḡ-at-ex* ‘s/he makes aware’
 - t^halák* ‘s/he is old’ → *ʔiná-t^hañá-ç* ‘we are old’
 - ʔō-j-ápił* ‘I return there’ → *ʔi-j-ápn̥-eʔn* ‘we return there’

⁶At least in some dialects, this rule is no longer entirely productive. For example, in the Rivadavia subdialect of Southeastern Wichí forms such as *ʔitsel-hat* ‘to sharpen’, *qalel-hitʷe* ‘not to know’, *totajal-hu* ‘next year’ are attested (Terraza 2009b: 47).

(366) Southeastern Wichí (Ingeniero Juárez) (Cayré Baito & Carpio 2009: 102–103)

- a. j-el-ñen [jɛ'ɲɛ̃n]
3.I-be_tired-PL
'they are tired'
- b. j-opil-ñit'e [jɔp'ɲĩdɛ]
3.I-return_thither-NEG
's/he does not come back'
- c. to-ʔox^wel-ñen [tɔf^wɛ'ɲɛ̃n]
GNR-be_ashamed-PL
'we are ashamed'

The following examples show the evolution of PM clusters of the shape */Cx/ or */Cχ/ where the first element is a fricative (*/Ch/ was not a licit sequence in PM, as discussed in §5.2.4). Such clusters simply lose the second element in Wichí.

- (367) PM *[ji]φχän- ~ *[ji]φχán- 'to kill a bird' > Ni [ji]φxan-APPL • PCh *<ʔa>hwén-(n)ah 'bird' • PW *<ʔa>x^wén-k^je 'bird'
- (368) PM *-φχúx, *-φχú-ts 'finger' > Mk -fux • Ni -φxux, -φxu-s 'toe' • PCh *-hwu-kéʔ • PW *-x^wúx^w, *-x^wú-s
- (369) PM *kétχa-ju^k, *kétχa-jku-j^h 'red quebracho' > Mk *ketε-jku-* • Ni *tʃetχa-juk*, *tʃetχa-ku-j* • PCh *kéhla-juk / *kéhla-jku- • PW *k^jét-juk^w, *k^jét-k^ju-j^h
- (370) PM *táxχan 'to thunder' > Mk *texen* • Ni *tafxen* • PW *t'áχan
- (371) PM *t-xǎjk'u (*-l) 'egg' > Ni *t-fajk'u* (-k) • PCh *hl-éjk'uʔ (*-l) • PW *t-ík^j'u (*-l^h)
- (372) PM *t-xáte^k 'head' > Ni *t-fatetf* • PCh *hl-étek • PW *t-éteq
- (373) PM *-ʔäsχaⁿ, *-ʔäsχán-its 'meat' > Mk -ʔeseⁿ, -ʔesen-its • Ni -(ʔa)sxaⁿ, -(ʔa)sxan-is • PCh *-ʔisáⁿ, *-ʔisán-is • PW *-t-'isaⁿ, *-t-'isán-is

This sound change accounts for the fact that /h/ is synchronically banned after fricatives in all Wichí varieties, including 'Weenhayek (Claesson 1994: 28),⁷ and Southeastern Wichí. Whenever an *h*-initial morpheme is preceded by a fricative, the glottal fricative is deleted.

⁷The only exception is the root *-xhân* 'to bury', whose Chorote cognate **-qhán* has a stop.

(374) 'Weenhayek (Claesson 1994: 28, fn. 34)

- a. ʔis-he'n [ʔi'senʔ]
good-PL
'they are well'
- b. ʔi-k'ãx-he'n [ʔik'ãxenʔ]
3.I-buy-PL
's/he buys them'

(375) Southeastern Wichí (Rivadavia) (Terraça 2009b: 43–44)

- a. pite-s-hit'e [pitesit'e]
long-PL-NEG
'they are short'
- b. i-k'es-hen [ik'esen]
3.I-heal-PL
'they are in good health'
- c. ŋ-k'ɔx-hu [ŋk'ɔxu]
1-buy-APPL:for
'I buy for'
- d. la-sax-hi [lasaxi]
2.ACT-cut-APPL:in
'you work'

(376) Southeastern Wichí (Lower Bermejeño) (Nercesian 2014: 108–109)

- a. ha-ŋ-tef^w-hi [hãŋtef^wi]
NEG-1-eat-NEG
'I don't eat it'
- b. ŋ-k^wes-hen [ŋk^wesən]
1-cut_oneself-PL
'we cut ourselves'
- c. ʔi-tʃes-hat [ʔitʃesat]
3.I-heal-CAUS
's/he heals her/him/it'
- d. Ø-toɬ-hu [toɬu]
3-come_from-APPL:for
's/he comes from'

- e. j-uk^waχ-hi [ju,k^wa'χɪ]
3.I-bite-APPL:in
's/he chews something'
- f. ŋ-tijoχ-hila [ŋ,tijo,χ'ɪla]
1-throw-FUT
'I will throw it'
- g. j-ʔaχ-hu [ʔjaχu]
3.I-hit-APPL:for
's/he breaks it'

9.1.1.17 Other consonant clusters

Though some consonant clusters of Proto-Mataguayan have been preserved in Wichí, many underwent considerable change.

The following examples instantiate retentions; note that although the tautosyllabic clusters **kʰt* and **tkʰj* have subsequently changed in all Wichí dialects (§9.2.1.8), they are clearly reconstructible to Proto-Wichí.

- (377) PM **ktáʔnih* 'Chaco tortoise' > PCh **kitáʔnih* • PW **kʰtáʔnih*
- (378) PM **ktéta(?)* ~ **ktáta(?)* 'white algarrobo fruit (*Prosopis elata*)' > PCh **kitéta?* • PW **kʰtéta*
- (379) PM **spú(?)p* 'dove' > PCh **s²púp* • PW **spúp*
- (380) PM **tkéna(?)X₁₂* ~ **tkána(?)X₁₂*, **tkénX₁₃a-ts* ~ **tkánX₁₃a-ts* 'precipice; hill, mountain' > PCh **t²kénah*, **t²kéhna-s* • PW **tkʰénaχ*, **tkʰénha-s*

The Proto-Mataguayan sequences **kφ* and **kφʰ* yield Proto-Wichí **k^w*, **k^{wʰ}*. The preceding vowel (if there is one) apparently becomes rounded, though it is unknown whether this is regular, since only one example has been found.

- (381) PM **[j]ékφaʔx* 'to bite' > Mk *[j]ikfeʔx* • PCh **[j]ókawah* • PW **[j]ók^waχ*
- (382) PM **-kφe(?)* (**-j^h*) 'ear' > Mk *-kfi?* (-j) • Ni *-kφe?* (-j) • PW **-(t-)k^we<j>* / **-(t-)k^we-* 'arm, hand'
- (383) PM **[ji]kφʔäs* ~ *[ji]kφʔäs* 'to be torn open' > Ni *[ji]kʔas-APPL* • PCh **[ʔi]kʔ(w)ós* • PW **[hi]k^{wʰ}és-APPL*
- (384) PM **[j]ókφe(?)*(t)s ~ **[j]ókφä(?)*(t)s ~ **[j]ékφe(?)*(t)s ~ **[j]ékφä(?)*(t)s 'to frighten' > PCh **[j]ókwes* • PW **[j]ók^wes*

Several clusters, such as PM **ɸts*, **sk*, **sl*, and **tl*, are resolved by **i*-epenthesis, at least word-initially.

- (385) PM **ɸtsána*([?])*χ* ‘suncho (*Baccharis sp.*)’ > Ni *ɸtsanax* • PCh **sánah* • PW **x^witsánaχ*
- (386) PM **ɸts-u^ʔk* ‘palm (*Copernicia alba*)’ > Mk *fits-uk* • Ni *ɸts-u^ʔk* • PCh **hwis<úk>* • PW **x^wits<uk^w>*
- (387) PM *(-)*skä^ʔt* ‘mesh’ > Ni *-stfa^ʔt* • PW **sik^ʔet*
- (388) PM **sláqha*(^ʔ)*j*, **sláqhaj-its* ‘wild cat’ > Ni *sklâkxaj* ~ *sklâkxaj (-is)* • PCh **s^ʔlâhqaj^ʔ* ~ **s^ʔlâhqâj^ʔ* (*-is) • PW **silâqhâj*
- (389) PM **tlú^ʔk* ‘blind’ > Ni *taklu^ʔk* • PCh **t^ʔlúk* • PW **tilúk^w*

The cluster PM **st* undergoes **i*-prothesis in the word-initial position.

- (390) PM **sténi*(^ʔ) ‘white quebracho’ > Mk *sitin-u^ʔk* • PCh **ʔ^ʔsténi^ʔ* • PW **ʔisté^ʔnih*
- (391) PM **stwú^ʔn*, **stwún-its* ‘king vulture’ > Ni *staβu^ʔn*, *staβun-is* • PCh **ʔ^ʔstúu^ʔn*, **ʔ^ʔstúun-is* • PW **ʔistíwin*
- (392) PM **stá-^ʔq* ‘toothpick cactus (*Stetsonia coryne*)’ > PCh **ʔ^ʔstá-k* • PW **ʔistá-q*
- (393) PM **stáɸe*(^ʔ) ‘Chaco chachalaca’ > PCh **ʔ^ʔstáhwe^ʔ* • PW **ʔistáx^we*

In clusters whose first member is any of **l*, **w*, or *^ʔ*w*, only the last member survives in Wichí, but a deleted PM **w* can trigger rounding of a preceding vowel (PM **e* > PM **o*). Other clusters where only the last member survives include **ɸq*, **nxt*, and **X₂₃t*.

- (394) PM **-ɸqató* (*-*l*) ‘elbow’ > Ni *-(ʔV)ɸkato (-k)* • PCh **-qató^ʔ* (*-*l*) • PW **-qáto* (*-*l^h*)
- (395) PM **-k^ʔálɸah* ‘spouse’ > Ni *-t^ʔakɸa* • PCh **-k^ʔélhwah* • PW **-k^ʔéx^wah*
- (396) PM *(-)*lká*(^ʔ)*t* ‘nasal mucus, cold’ > Mk *-leke*(^ʔ)*t* • PCh **két* • PW **k^ʔét-taχ*, **k^ʔét-ta-s*
- (397) PM **níltsa*(^ʔ)*X₁₂*, **níltsX₁₃a-ts* ‘white-lipped peccary’ > PCh **<ʔih>nílsah*, **<ʔih>nílsa-s* • PW **nítsaχ*, **nítsha-s*
- (398) PM *^ʔ*njánxte^ʔ* ‘tapeti rabbit, cavy’ > Mk *nijaxti^ʔ* • Ni *nánxate* • PCh *^ʔ*náhâte^ʔ* • PW **x^wnáte*
- (399) PM **-tséwte*(^ʔ) (*-*j^h*) ‘tooth’ > Ni *-tseβte (-j)* • PW **-tsóte* (*-*j^h*)

- (400) PM **-w(t)s'é* (**-l*) ‘belly’ > Ni *-βts'e* (*-k*) • PCh **-ts'é?* (**-l*) • PW **-ts'é* (**-l^h*)
- (401) PM **wkína*([?])*X*₁₂, **wkínX*₁₃*a-ts* ‘metal’ > PCh **w^okínah*, **w^okínha-s* • PW **k'ínaχ*, **k'ínha-ts*
- (402) PM **-ʔáX*₂₃*te*([?]) (**-j^h*) ‘female breast’ > Ni *-ʔaxte* (*-j*) • PCh **-ʔáhate?* (**-j^h*) • PW **-t-ʔáte* (**-j^h*)

In clusters that involve an approximant as their final element – such as **sw*, **nj*, and **nj* – the approximant is lost in Wichí; PM **nj* is reflected as PW **xn* at least word-initially. The Wichí reflex in (405) is in any case irregular.

- (403) PM **-nji'x* ‘smell’ > Mk *-nji'x* • Ni *-ni'f* • PCh **-níh* • PW **-niχ*
- (404) PM **njánxte?* ‘tapeti rabbit, cavy’ > Mk *nijaxti?* • Ni *nánxate* • PCh **náhate?* • PW **xnáte*
- (405) PM **stwún*, **stwún-its* ‘king vulture’ > Ni *staβu'n*, *staβun-is* • PCh **ʔstúu'n*, **ʔstúun-is* • PW **ʔistíwin*
- (406) PM **s^owúla* [?]χ, **s^owúla-ts* ‘anteater’ > Ni *s^oβuklax*, *sβukla-s* • PCh **s^oúlāh*, **s^oúlā-s* • PW **súlaχ*

PM **tsn* yielded PW **tn*.

- (407) PM **tátsna*([?])*X*₁₂ ~ **tátsne*([?])χ ‘toad’ > PCh **tásVnah* • PW **tátnaχ*

Stem-initial clusters of a guttural fricative and a sonorant yield PW **xC*, whereas in the only example of a stem-initial cluster of a guttural fricative and an obstruent one finds PW **hp* as the reflex.

- (408) PM **xnáwã* [?]p ‘spring’ > Mk *xinawa* [?]p • Ni *fnaβãp* ~ *fnãβãp* • PCh **náwop* • PW **xnáwop*
- (409) PM **Xmáwoh* ‘fox’ > PCh **máwo-tah* • PW **xmáwoh*
- (410) PM **(-)X*₂₃*pél* ‘shadow’ > Ni *xpek* • PCh **-pél* • PW **hpél^h* / **-hpe^h*
- (411) PM **X*₂₃*wé'lah*, **X*₂₃*wé'la-ts* ‘moon’ > Ni *xíβe'la* (*-s*) • PCh **wé'lah*, **wé'la-s* • PW **xwé'lah*

9.1.2 Vowels

Wichí shows more or less the same reflexes of PM vowels as Chorote: most vowels are preserved intact except for PM **ä*, which merges with **e* (or with **i*, if an accented syllable follows; §9.1.2.1). Three minor innovations shared with Chorote

are the lowering of **e* to **a* before a * χ in the coda position (§9.1.2.2; also shared with Maká), the lowering of **i* to **e* in the environment **At/x...ts* (§9.1.2.3) and to **a* in the environment **#?...C'Á* (§9.1.2.4), and the rounding of **e* before clusters with a labial (§9.1.2.5). Other minor innovations, not shared with Chorote, are the fronting of **á* before **m* (§9.1.2.6) and word-medial syncope in words with initial accent (§9.1.2.7).

9.1.2.1 Reflexes of PM **ä*

PM **ä* is most commonly reflected as PW **e*. The reflex PW **i* in (441) is apparently the regular continuation of PM **äj*. In (418), only Weenhayek shows the expected reflex *e*, whereas other varieties have an irregular reflex *i*.

- (412) PM *[j]áp'ä(°)t ~ *[j]áφ'ä(°)t 'to burn' > Ni [j]ap'at • PCh *[j]áp'et • PW *[j]áp'et
- (413) PM *-äφ, *-φá-ts 'wing' > Mk 3 t-ef, te-fe-ts • Ni -aφ, -<a>φa-s • PCh *-hw<és> • PW *-t-ex^w
- (414) PM *-áj, *-áj-is 'yica bag' > Ni -a'j, -aj-is • PCh *-éj?(*-is) • PW *-t-éj(*-is)
- (415) PM *t-äk 'you go away' > PCh *hl-ék • PW *t-eq
- (416) PM *n-äk 'to come' > Mk n-ek • Ni n-atf • PW *n-eq
- (417) PM *[j]än 'to put' > Mk [j]en-APPL • Ni [j]an • PCh *[j]én • PW *[j]én
- (418) PM *[ji]φá'jä ~ *φá'jä 'to fly' > Ni [ji]φá'jä • PCh *[ʔi]hwé'já? • PW *x^we'já ~ *w- ~ *-i-
- (419) PM *[ji]φäl 'to tell' > Mk n(i)-fel-im • Ni n(i)-φak / n(i)-φakl̄ • PCh *[ʔi]hwél • PW *[ʔi]x^wél^h / *[ʔi]x^wél-
- (420) PM *(-)φétä'ts 'root' > Mk fitets • Ni -φeta's • PCh *-hwétus • PW *(-)x^wétes
- (421) PM *φi'jät 'cold weather, south wind' > Ni φi'jat • PCh *hwi'jét • PW *x^wi'jét
- (422) PM *-φitä(°)k 'dream' > PCh *-hwíhlek • PW *-x^wíteq
- (423) PM *[ji]φχän- ~ *[ji]φχán- 'to kill a bird' > Ni [ji]φχan-APPL • PCh *<ʔa>hwén-(n)ah 'bird' • PW *<ʔa>x^wén-k'e 'bird'
- (424) PM *kowä'x / *-kówä'x 'hole' > PCh *kowéh / *-kóweh • PW *k'owex / *-k'ówex
- (425) PM *-k'älφah 'spouse' > Ni -tʃ'akφa • PCh *-k'élhwah • PW *-k'j'éx^wah

- (426) PM *[ji]k'än 'to stretch out' > Ni [ji]tʃʰan • PCh *[ʔi]k'én-APPL • PW *[hi]kʲ'én
- (427) PM *[ji]k'ásaʔχ ~ *[ji]k'áseʔχ 'to divide' > Mk [j]<a>k'esaʔχ • PCh *[ʔi]k'ésah • PW *[hi]kʲ'ésaχ
- (428) PM *látseni(?) 'chañar fruit' > PCh *létseni? • PW *létsenʰnih
- (429) PM *látsen-uʰk 'chañar plant' > Mk <xu>letsin-uʰk • PCh *léseni-k • PW *létsen-ukʷ
- (430) PM *(-)lkǎ(ʔ)ʰ 'nasal mucus, cold' > Mk -leke(ʔ)ʰ • PCh *kéʰ • PW *k'ét-taχ, *k'ét-ta-s
- (431) PM *(-)skäʰt 'mesh' > Ni -stfaʰt • PW *sikʰet
- (432) PM *[ni]-tǎφǎ(ʔ)l-APPL 'to know, to be acquainted' > Ni [ni]tǎφǎkʰl-APPL • PCh *[ʔi]tǎhʷel-APPL • PW *-tǎxʷel-APPL / *-tǎxʷnh-APPL
- (433) PM *-tǎwǎʰx, *-tǎwxǎ-ts 'abdominal cavity' > Mk -tawǎʰx, -tawxe-ts • Ni -tǎβaʰf, -tǎβxa-s • PCh *-tóweh • PW *-tóweχ
- (434) PM *-tä(ʔ)ts, *-täts-él 'trunk, base' > PCh *-tés (*-el) • PW *-tes, *-téts-elʰ
- (435) PM *-témä(ʔ)k ~ *-támä(ʔ)k, *-témh-ajʰ ~ *-támh-ajʰ 'bile' > PCh *-témek, *-tém-ajʰ • PW *-témeq, *-témh-ajʰ
- (436) PM *wǎk 'all' > Mk we:k • Ni -βatf • PCh *-wek • PW *-weq
- (437) PM *-wǎʰx, *-w(ǎ)x-ájʰ 'burrow; anus' > Ni -βaʰf, -βaf-ajʰ • PCh *-wéh • PW *-wéχ, -wh-ájʰ
- (438) PM *ʷwǎleʰk 'to walk' > Mk <-i>ʷwelki-ʷmet 'to limp' • Ni βakʰleʰtf • PCh *[ʔi]ʷwélek • PW *ʷweleq
- (439) PM *[ji]ʷwǎn 'to see' > Mk [ji]ʷwen • Ni [ji]ʷβan • PCh *[ʔi]ʷwén • PW *[hi]ʷwén
- (440) PM *-ʷwǎt 'place' > Mk -ʷwet • Ni -ʷβat • PCh *-ʷwét • PW *-ʷwet
- (441) PM *-xǎjkʰu(?) (*-l) 'egg' > Ni -fajkʰu (-k) • PCh 3 *hl-éjkʰu? (*-l) • PW *-ʰ-íkʰu (*-lʰ)
- (442) PM *-xǎʰn(eʔ) 'verbal plural (suffix)' > Ni -faʰneʔ / -xaʰneʔ • PCh *-heʰn(eʔ) • PW *-heʰn
- (443) PM *-xǎteʰk, *-xǎthe-jʰ 'head' > Ni -fateʰtf, -fatxe-s • PCh *-hétek, *-héhte-jʰ • PW *-ʰ-éteq, *-ʰ-éthe-jʰ
- (444) PM *[t]ʰǎ(ʔ)k 'to eat (intr.)' > Mk [t]ʰek • PW *[t]ʰeq

In syllables that precede the accented one, however, the regular reflex of PM *ä seems to be PW *i rather than *e, though the conditioning environment is not entirely clear at present.

- (445) PM *pätóχ ‘to be deep’ > Ni [ʔa]patox • PCh *-pítohw<ijʔ> • PW *pitóχ^w
 (446) PM *tsänúʔk ‘duraznillo trees’ > Ni tsanuʔk • PCh *sinúk • PW *tsinúk^w
 (447) PM *-ʔäsχáʔn, *-ʔäsχán-its ‘meat’ > Mk -ʔeseʔn, -ʔesen-its • Ni -(ʔa)sxaʔn, -(ʔa)sxan-is • PCh *-ʔisáʔn, *-ʔisán-is • PW *-t-ʔisaʔn, *-t-ʔisán-is

9.1.2.2 Lowering of *e before *χ

Before the uvular fricative PM *χ, the vowel *e has a special lowered reflex, PW *a. This is shared with Maká (§6.2.1.4) and Chorote (§8.1.2.2).

- (448) PM *[j]áte(?)χ ‘to be fat’ > Ni [j]átex • PCh *[j]átah • PW *[j]átax
 (449) PM *páttsex ‘jabiru’ > Ni pátsex • PCh *pátsáh • PW *pátsax
 (450) PM *pitéχ, *pité-ts ‘long’ > Ni pitex, pite-s • PW *pitáχ, *pité-s
 (451) PM *(-)tútse(?)χ ‘smoke’ > PCh *(-)túsah • PW *(-)tútsax
 (452) PM *tséχ-APPL ‘full (river)’ > Ni tsex-APPL • PCh *-sáh • PW *tsáχ-APPL
 (453) PM *wósitsex ‘black algarrobo fruit (*Prosopis nigra*)’ > Mk ositsax • Ni βaitsex • PW *wósotsax
 (454) PM *ʔáwu(C)tsex ‘peccary’ > Ni ʔabuktsex ~ ʔaboktsex • PCh *ʔáwusah • PW *ʔáwutsax
 (455) PM *ʔáʔjtex, *ʔáʔjtex-ts ‘to hurt’ > Mk aʔtax, aʔti-ts • Ni ʔáʔjtex ~ ʔáʔβtex • PCh *ʔáʔjʔtah-APPL, *-ʔáʔjʔte-s-APPL • PW *ʔáʔjtax, *ʔáʔjtex-s
 (456) PM *ʔál(V)tse(?)χ, *ʔál(V)tse-ts ‘chágua (*Deinacanthon urbanianum*)’ > Ni ʔáktsex, ʔáktse-s • PCh *ʔálʔsah, *ʔálʔse-s • PW *ʔáletsax
 (457) PM *ʔánhajex ‘wild bean (*Capparis retusa*)’ > Mk anhajex • Ni ʔánxajex • PCh *ʔóhnajah • PW *ʔánhjax
 (458) PM *ʔaX₁₃ájje(?)χ ‘mistol fruit’ > Ni ʔaxájex • PCh *ʔahájah • PW *ʔahájax
 (459) PM *ʔuwáte(?)χ ~ *Cʔuwáte(?)χ ‘puma’ > Ni <xum>pʔubátex • PCh *kʔuwáhlah • PW *ʔowátax ~ *Cʔowátax

The lowering induced by the uvular fricative left behind a synchronically active alternation in Wichí. In forms that go back to PM etyma with a $*\chi$, the lowering applies, and one finds PW $*a$. By contrast, the reflexes of PM forms derived from the vocalic stems of the same etyma (see §5.2.2) show no lowering, because PM $*\chi$ was absent in the respective protoforms. Consequently, one finds PW $*e$.

(460) 'Weenhayek (Claesson 2016: 8, 92, 293, 297, 426)

- a. *pitáx* ‘long.SG’ → *pité-s* ‘long.PL’
- b. *p'alítsax* ‘poor.SG’ → *p'alítse-s* ‘poor.PL’
- c. *(-)tútsax* ‘smoke’ → *tútse-tax* ‘mist’
- d. *ʔájtax* ‘it hurts’ → *ʔájte-s* ‘they hurt’

(461) Southeastern Wichí (Lower Bermejeño) (Nercesian 2014: 210–211)

- a. *-tsax* ‘NMLZ.SG’ → *-tse-s* ‘NMLZ.PL’

9.1.2.3 Lowering of $*i$ in the environment $*At/x...ts$

In Wichí, PM $*i$ lowers to $*e$ before $*ts$, provided that there is a low vowel ($*a$ or $*á$) in the preceding syllable. This most regularly happens when the syllable has $*t$ as the onset, but one example with PM $*x > \text{PW } *h$ has also been identified. As a consequence, the nominal plural suffix $*-is$ shows the allomorph $*-es$ in Proto-Wichí, an alternation best described as an instance of progressive height harmony. This innovation is shared with Chorote (§8.1.2.3); in addition, a similar process operates dialectally in Nivaçle (§7.2.6).

(462) PM $*jinát-its$ ‘water.PL’ > Ni *jinât-is* • PCh $*ʔi\text{'nát-es}$ • PW $*ʔinát-es$

(463) PM $*qati\text{'ts}$, $*qatits-él$ ‘star’ > Ni *kati\text{'s}* • PCh $*qatés$, $*qates-él$ • PW $*qates$, $*qatés-el^h$

(464) PM $*...X_{23}a\text{'t-its}$ ‘earth.PL’ > Ni *<kots>xat-is* • PCh $*<ʔa>h<n>át-es \sim *<ʔá>h<n>át-es$ • PW $*<hon>hat-es$

(465) PM $*-ʔáx-íts$ ‘skins, barks’ > Mk *-ʔax-its* • Ni *-ʔáx-is* • PCh $*-ʔáh-és$ • PW $*-t\text{'áh-és}$

9.1.2.4 Lowering of $*i$ before glottalized consonants followed by a low vowel

We have already seen that the sequence PM $*ji$ changed to $*ʔi$ word-initially in Proto-Wichí (§9.1.1.7). However, when followed by a glottalized consonant and a low vowel (PM $*a$ or $*á$, but not $*ä$), it underwent further change: the vowel

was lowered, yielding *ʔa, and then glottal dissimilation applied, with PW *ha as the outcome (§9.1.1.8). The development PM *ji > *ʔi > *ʔa in this environment is shared with Chorote (§8.1.2.4), but the change *ʔa > *ha is exclusive to Wichí.

- (466) PM *jiʔjãʔX₁₂ ‘jaguar’ > Ni jiʔjãʔx • PCh *ʔaʔjáh • PW *haʔjãχ
 (467) PM *jiʔlãʔ, *jiʔlãʔ-jʰ ‘tree’ > Ni jiʔklãʔ(-j) • PCh *ʔaʔlãʔ(*-jʰ) • PW *haʔlã, *haʔlã-jʰ
 (468) PM *jitʔáʔ, *jitʔáʔ-l ‘vulture’ > Ni jitʔáʔ(-k) • PCh *ʔatʔáʔ(*-l) • PW *hatʔáʔ(?)

9.1.2.5 Rounding of *e before clusters with a labial

In two examples, PM *e appears to have acquired rounding in Wichí before a cluster with a labial consonant, yielding Proto-Wichí *o.

- (469) PM *[j]ékʰaʔx ‘to bite’ > Mk [j]ikʰeʔx • PCh *[j]ókʰwah • PW *[j]ókʰaχ
 (470) PM *-tséwte(?) (*-jʰ) ‘tooth’ > Ni -tseβte(-j) • PW *-tsóte(*-jʰ)

9.1.2.6 Fronting of *á before *ʔm

PM *á is fronted to PW *a before the coda *ʔm, as the following two examples show.

- (471) PM *-áʔm ‘pronominal formative’ > PCh *-áʔm • PW *-aʔm
 (472) PM *[ji]táʔm ‘to defecate’ > Mk <i>taʔm • Ni [ji]táʔm • PCh *[ʔi]hláʔm • PW *[t]⟨ʔa>táʔm

9.1.2.7 Syncope

In polysyllabic words, a vowel is sometimes syncopeated in a medial open syllable if there is an accented syllable to the left.

- (473) PM *kéʔʎa-juʔk, *kéʔʎa-jku-jʰ ‘red quebracho’ > Mk keʔe-jku- • Ni tʃeʔʎa-juk, tʃeʔʎa-ku-j • PCh *kéhla-juk / *kéhla-jku- • PW *kʰéʔ-jukʰ, *kʰéʔ-kʰu-jʰ
 (474) PM *-qásile(?) (*-jʰ) ‘guts’ > PCh *-qásile-jʰ • PW *-qásle-jʰ
 (475) PM *ʔwánXáʔtáʔχ, *ʔwánXáʔtáʔ-ts ‘rhea’ > Mk waatáχ • Ni βánxátáʔχ, βánxátáʔ-s • PCh *ʔwánhlâh, *ʔwánhlâ-s • PW *wáʔntáʔχ, *wáʔntâ-s
 (476) PM *ʔánhajex ‘wild bean (*Capparis retusa*)’ > Mk anhejaχ • Ni ʔánxajex • PCh *ʔóhnajah • PW *ʔánhjaχ

- (477) PM *^ʔ[j]óp'ale(?) 'to hiccup' > Ni [j]op'ak̄le / -ʔop'ak̄le 'to choke' • PCh *^ʔ[j]óp'ale? • PW *^ʔ[j]óp'le
- (478) PM *^ʔl-ó'ṭhale(?) ~ *^ʔl-ó'ṭhãle(?) 'heart' > PCh *^ʔt-óhtale? ~ *^ʔt-óhtãle? • PW *^ʔt-ótle

However, there are many words with the same prosodic structure where the syncope fails to occur, such as PW *^wtsóx^wa-t-uk^w 'shrub (*Lycium americanum*)', *^wwósak^jVt 'red-crested cardinal', *^wwák^ja-juk^w 'guayacán'. The exact conditions for syncope in Wichí require further study.

The syncope left behind a number of alternations in Wichí, as exemplified below.

- (479) Southeastern Wichí (Rivadavia) (Terraza 2009b: 27–29, 40, 53)
- a. *j-i'set* 's/he cuts' → *ji-s't-ex* 's/he cuts with', *ji-st-^hi't'e* 's/he does not cut'
 - b. *ṇ-lesaj'en* 'I write' → *ja-lesaj'ṇ-en* 'we write'
 - c. *hu'san* 'ax' → *hus'n-is* 'axes'

9.1.3 Word-level prosody

Two phenomena should be distinguished in Wichí at the suprasegmental level: vowel length (symbolized here with the acute accent) and stress (marked with the sign ʔ). The distribution of the vowel length (§9.1.3.1) follows a complex left-aligned pattern, with different morphemes (including lexical roots) having different underlying specifications; in Chapter 4 we argued that this pattern is the direct continuation of the Proto-Mataguyan accent. ʔweenhayek is the only variety known to systematically preserve the vowel length distinctions of Proto-Wichí. By contrast, the stress (§9.1.3.2) is right-aligned in Wichí, its function is to signal the right edge of the word, and the only complication is that a few suffixes are specified as extrametrical. Although the right-aligned stress in Wichí is superficially similar to the right-aligned stress in Maká and Nivaçle, the pattern is so trivial that it could very well result from independent innovations, and we do not reconstruct it to Proto-Mataguyan.

9.1.3.1 Vowel length

The long vowels of Proto-Wichí are reconstructed based on evidence from only one variety, ʔweenhayek, where vowel length is contrastive to this day: consider the pairs ʔōjik 'I go' and ʔōjik 'my scar', ʔa? 'louse' and ʔá? 'its fruit', ʔapaq 'her/his

voice' and *lapáq* 'you paint', *ʔet* 'another' and *ʔét* 'her/his relative' (Claesson no date: 24); recall that the acute accent in our notation denotes vowel length and not stress. As for the varieties of Wichí spoken in Argentina, the erstwhile vowel length opposition appears to have been lost, at least according to our reference sources. In what follows, we rely exclusively on 'Weenhayek in our discussion of the Proto-Wichí vowel length.

In 'Weenhayek (and Proto-Wichí), there may be at most one long vowel per word, and which vowel surfaces as long depends on the morphological composition of the word and on the lexical specifications of individual morphemes (Claesson no date: 24–30). An inspection of the 'Weenhayek data in Claesson (2016) shows that the language has three kinds of morphemes with regard to vowel length:

1. some morphemes contain an underlying long vowel;
2. some morphemes lack underlying long vowels;
3. one prefix (*la-* / *lat'*- / *ʔ-* '2.ACT') is exceptional in that it triggers vowel length in the initial syllable of the stem.

Typically, only the leftmost underlying long vowel surfaces as long, whereas all subsequent underlying long vowels are shortened (Claesson no date: 25–26). The syllable that contains a long vowel receives secondary stress, unless when primary stress (§9.1.3.2) happens to fall on that syllable.

(480) 'Weenhayek (Claesson no date: 25–26)

- a. /tájhi-ʔ-éle/ [ta:ɲjĩte'leʔ]
forest-3.POSS-inhabitant
'forest dweller'
- b. /'nó-híh-wúk/ [,'nõ:hi'wuk]
GNR-boat-owner
'boat owner'
- c. /nijáte-(á)jh-lés-(ʔa)tsính(a)-ájh/ [ni.ja:telestsi'ñãç]
chief-PL-children-woman-PL
'kings' daughters'

Exceptionally, in incorporation constructions, where a verbal stem and a nominal stem are combined in one phonological word, it is always the long vowel in the nominal stem that makes it to the surface, and any long vowels in the verbal

stem are shortened (even though they are located to the left), as in the example *ʷk ni-kʲát-pʻante-ʔúx^w=eh* ‘s/he came to the other side of the river a long time ago (without my witnessing it)’, where the verb *ni-kʲát=eh* ‘s/he came to’ loses its long vowel before an incorporated noun *ʔúx^w* ‘side of the river, shore’ (Claesson 1994: 9).

An additional rule applies to trisyllabic (or longer) words that lack an underlying long vowel within the disyllabic windows at their left edge: in this case the vowel of the peninitial syllable (underlyingly short) surfaces as long, and any subsequent underlying long vowels are shortened (Claesson no date: 27–29). In forms that arose due to Watkins’ Law (§9.1.4), the domain for the application of this rule excludes any material that precedes the erstwhile third-person prefix (Claesson 1994: 11); this includes all forms inflected for the first person singular (481f), and all other forms where an erstwhile third-person prefix intervenes between a prefix and a vowel-initial or a *ʔ*-initial stem (481g). In the following examples, which instantiate the lengthening rule, the location of the disyllabic window is shown by means of parentheses.

(481) *ʷ*Weenhayek (Claesson 2016: 65, 95, 109, 140, 173, 405)

- a. /*(la-kʲo)wex*/ [*(la,kʲo)ʷex*]
3.POSS-hole
‘its hole’
- b. /*(la-x^wi)jho*/ [*(la,x^wi:ʷ)jōʔ*]
3.POSS-charcoal
‘its charcoal’
- c. /*(ʷwelek)-ʰih*/ [*(ʔwe,le:k)ʰih*]
3.glean-HAB
‘s/he routinely gleans’
- d. /*(haʷlâ)-ʰáwoʔ*/ [*(hã,ʔla:)ʰaʷoʔ*]
tree-3.POSS-flower
‘tree flower’
- e. /*(haʷlâ)-tohw-ájh*/ [*(hã,ʔla:)toʷwãç*]
tree-hole-PL
‘tree holes’
- f. /*ʔō-(tiʰax)-ʰih*/ [*ʔō(ti,ʰa:x)ʰih*]
1SG-3.carry_on_shoulders-HAB
‘I routinely carry it on my shoulders’

- g. /^onó-(t-ʔax^w-kⁱa)-tax/ [ʔnõ(t'ax^w,kⁱa)'tax]
 GNR-3.POSS-skin-illness_spirit-pseudo
 'one's chickenpox'

We suggest that in most cases the long vowels of 'Weenhayek (and Proto-Wichí) straightforwardly continue the accented vowels of Proto-Mataguayan, and that the underlying accentual properties of specific morphemes were also inherited from PM (though we currently have no explanation for the behavior of the prefix *la-* / *lat'-* / *t-* '2.ACT'). As discussed in Chapter 4, already in Proto-Mataguayan only the leftmost underlying accent in any given word made it to the surface, whereas all subsequent underlying accents were eliminated; this rule (*mutatis mutandis*) is still active in Proto-Wichí and 'Weenhayek. In addition, as shown in §4.3.2, Proto-Mataguayan had a rule whereby a default peninitial accent is inserted in words without an underlying accent within the trisyllabic window at the left edge: $\sim\sim(\dots) \rightarrow \sim\sim(\dots)$. This rule is also preserved in Proto-Wichí and 'Weenhayek, but with an important change regarding the rule conditioning: in Wichí, the peninitial lengthening now occurs not only in the unaccented left-aligned trisyllabic window, but also in the unaccented left-aligned *disyllabic* window (provided that the word is trisyllabic or longer): $\sim\sim\dots \rightarrow \sim\sim\dots$. In particular, the sequence $\sim\sim$, reconstructible for Proto-Mataguayan, is no longer licit in Wichí, where it yields $\sim\sim$, a change that can be seen in the following examples.

- (482) PM **-ʔapá(?)* 'shoulder' > PCh **-hwopó?* • PW **-x^wápo*
 (483) PM **-ʔqató* (**-l*) 'elbow' > Ni *-(ʔV)ʔkato* (*-k*) • PCh **-qató?* (**-l*) • PW **-qáto* (**-l^h*)
 (484) PM **-kilá?* (**-wot*) 'elder brother' > Ni *-tʃeklá?* / *tʃiklá-* (*-βot*) • PCh **-kilá?* (**-wot*) • PW **-kⁱíla*
 (485) PM **-kitá?* (**-wot*) 'elder sister' > Ni *-tʃita?* (*-βot*) • PCh **-kitá?* (**-wot*) • PW **-kⁱíta*
 (486) PM **-k'aló(?)* (**-ts*) 'cheek' > PCh **-k'aló?* (**-s*) • PW **-k^j'álo* (**-s*)
 (487) PM **-p'ot-és* \sim **-p'ot-ós* 'lids' > Ni *-p'ot-os* • PCh **-p'ot-és* • PW **-p'ót-es*
 (488) PM **-qalá?* (**-j^h*) 'leg' > Ni *-kaklá?* (*-j*) • PCh **-qa'lá?* \sim **-qá'lá?* (**-j^h*) • PW **-qálá* (**-j^h*)
 (489) PM **qatits-él* 'stars' > PCh **qates-él* • PW **qatéts-el^h*
 (490) PM **-täts-él* 'trunks, bases' > PCh **-tes-él* • PW **-téts-el^h*

Table 9.2 summarizes the evolution of the Proto-Mataguayan accent patterns in Wichí.

Table 9.2: PM accent patterns

| PM (underlying) | PM (surface) | PW and 'Wk (surface) |
|----------------------|--------------|----------------------|
| ˘ | ˘ | ˘ |
| - | - | - |
| ˘˘ | ˘˘ | ˘˘ |
| ˘- | ˘- | ˘- |
| ˘˘ / -- | ˘˘ | ˘˘ |
| ˘˘- | ˘˘- | ˘˘- |
| ˘˘˘ / ˘˘˘ / ˘˘- | ˘˘˘ | ˘˘˘ |
| ˘˘ / ˘˘- / ˘˘˘ / ˘˘˘ | ˘˘ | ˘˘ |

9.1.3.2 Stress

If the complex rules that determine the distribution of long vowels in Proto-Wichí are inherited from Proto-Mataguayan, the same cannot be said of the distribution of STRESS in Proto-Wichí. Stress in Wichí has a low contrastive load, and is typically assigned to the rightmost syllable in a word, unless it belongs to a verbal suffix lexically specified as extrametrical. There appears to be some dialectal variation regarding whether a given suffix is specified as extrametrical or not, as Table 9.3 shows. The data are from Nercesian (2014: 134–136), Terraza (2009b: 54–56), Claesson (no date: 22–23), and Claesson (2016).

Table 9.3: Extrametrical and metrical suffixes in Wichí lects

| PWi | gloss | Lower Bermejeño | Rivadavia | 'Weenhayek |
|-----------|--------------------------------------|-----------------|-------------------|-----------------------|
| *-k'e | 'along; distributive; plural object' | extrametrical | extrametrical | usually extrametrical |
| *-k'á? | 'downwards' | metrical | metrical | metrical |
| *-pe? | 'above' | metrical | metrical | metrical |
| *-h(i)lá? | 'to the front' | ? | metrical | metrical |
| *-ho | 'towards' | extrametrical | metrical | usually extrametrical |
| *-ej | 'far' | extrametrical | lexical variation | metrical |
| *-eχ | 'by means of' | extrametrical | lexical variation | extrametrical |
| *-ah | 'towards, near' | extrametrical | lexical variation | usually extrametrical |
| *-hi | 'in' | metrical | lexical variation | usually extrametrical |
| *-phá | 'upwards' | metrical | lexical variation | usually extrametrical |

In the examples below, extrametrical suffixes are segmented using the equal sign.

(491) Southeastern Wichí (Lower Bermejeño) (Nercesian 2014: 396–397)

- a. la-nuwaj [la.nũ'waj]
2.ACT-be_afraid
'you are afraid'
- b. la-nuwaj=a [la.nũ'waja]
2.ACT-be_afraid-APPL:near
'you are afraid of'
- c. ɳ-t-qatin [ɳt.qa'tin]
1SG-T-jump
'I jump'
- d. ɳ-t-qatin-hi [ɳt.qati'ɳi]
1SG-T-jump-APPL:in
'I jump in'

(492) 'Weenhayek (Claesson 2016: 22–23, 33)

- a. /Ø-í-phã/ [ʔi:pʰãʔ]
3-be-APPL:up
'it is up'
- b. /Ø-í=hi/ [ʔi:hĩʔ]
3-be-APPL:in
'it exists'
- c. /Ø-í=hi=k^ʃe/ [ʔi:hĩk^ʃeʔ]
3-be-APPL:in-PL
'they exist'
- d. /Ø-ipé^ʃlax/ [ʔipe:'lax]
3-be_white
'it is white'
- e. /Ø-ipé^ʃlax-pe/ [ʔipe:lax'peʔ]
3-be_white-APPL:above
'it dawns'
- f. /Ø-ipé^ʃlax=k^ʃe/ [ʔipe:'laxk^ʃeʔ]
3-be_white-APPL:along
'it is white along'

It is beyond the scope of this book to provide a coherent account for suffixes with a variable behavior in the Rivadavia subdialect of Southeastern Wichí and in 'Weenhayek. In the latter variety, for example, it is possible that at least some of these are actually pairs of homophonous suffixes with different underlying stress properties: compare 'Wk [j]ik-p^há? 's/he goes away upriver' and [j]ik-p^há? 's/he goes away upwards (in the air)', tãt-p^há? 's/he comes from upriver' and tãt-p^há? 's/he comes from above (in the air)' (Claesson no date: 18).

There are some further exceptions from the general rule regarding stress assignment in the Wichí varieties, none of which has known parallels elsewhere in Mataguyan. For example, the roots ?i- 'to be' and hu- 'to go' are reported to exceptionally attract stress in the Rivadavia subdialect of Southeastern Wichí, even when they are followed by metrical material (Terraza 2009b: 56). Exceptional non-final stress is found in the reflexes of PW ^{*x}x^wála 'sun, day', reflected as 'Weenhayek [ʔi^xwálaʔ] in free variation with [ʔix^wálaʔ] (Claesson 2016: 25), Rivadavia [i^xwála] (Terraza 2009b: 36), Misión El Carmen [x^wála], Colonia Muñiz [f^wála] (Censabella 2009: 138), among others. Other nouns with an exceptional stress pattern include 'Wk ʔa^xwúmaq 'corpse' and the Spanish loan 'mósoʔ 'young man' (Claesson no date: 19, fn. 16). In 'Weenhayek, syllables with a long vowel receive secondary stress when the primary stress falls elsewhere (Claesson no date: 20, 25).

Since the Wichí stress pattern lacks known counterparts in other Mataguyan languages, we consider it an innovation.

9.1.4 Watkins' Law as a regular morphological change in Wichí

Watkins' Law is the name given to a process whereby the form inflected for the third person singular is diachronically reanalyzed as a "base" form of a stem. This kind of morphological change has been originally identified in a number of Indo-European languages by Watkins (1962: 90–96).

In Wichí, the operation of Watkins' Law is most clearly seen in vowel-initial and *ʔ-initial obligatorily possessed nouns. In such nouns, the erstwhile third-person prefix *t- (before vowels, as in PM *t-áʔs 'her/his son') or *t-... (in *ʔ-initial stems, as in PM *t-'áte 'her breast') is now found not only in the form inflected for the third person, but also in the uninflected form (PW *NP t-áʔs 'NP's son', *NP t-'áte 'NP's breast'), in the form inflected for the first person singular (PW *n-t-áʔs 'my son', *n-t-'áte 'my breast'), for the first person inclusive (PW *tá-t-áʔs 'our son', *tá-t-'áte 'our breast'), and in the form with a generic

possessor (PW *^ʔ*no-t-ás* ‘one’s son’, *^ʔ*no-t-’áte* ‘one’s breast’).⁸ This includes all forms that are not inherited from Proto-Mataguyan but rather result from recent grammaticalization restricted to Wichí. The elements **t-* and **t-’...* do not show up in the forms inherited from Proto-Wichí, such as the second-person form (PW **∅-’ás* ‘your son’, **∅-’áte* ‘your breast’⁹) or the vocative form, a relic of the Proto-Mataguyan first-person form, preserved only in Weenhayek (PW **j-ás* ‘son!’).

- (493) PM **-á(-j^h)-xi?* (**-l*) ‘mouth’ > Mk *-e<xi?*> (*-l*) • Ni *-a<fi>* (*-k*) • PCh (?) **-á<aj?*> • PW **-t-áj-hi* (**-l^h*)
- (494) PM **-á’l* ‘light, brightness’ > PCh 3 **hl-á’l* • PW **-t-ál^h*
- (495) PM **-áwâ(?)* ‘flower’ > Ni *-aβâ* • PCh 3 **hl-áwo?* • PW **-t-áwo*
- (496) PM **-á?* (**-j^h*) ‘fruit’ > Mk 3 *t-e?* (*-j*) • Ni *-a?* (*-j*) • PCh 3 **hl-á?* (**-j^h*) • PW **-t-á?* (**-j^h*)
- (497) PM **-áq*, **-qá-ts* ‘food’ > Mk *-aq*, *-qa-ts* • Ni *-ák*, *-ká-s* • PCh **-ák*, *-qá-s* • PW **-t-áq*, **-qá<s>*
- (498) PM **-á’s* ‘son’ > Mk *-a’s* • Ni *-á’s* • PCh **-ás* • PW **-t-ás*
- (499) PM **-áse?* ‘daughter’ > Mk *-asi?* • Ni *-áse* • PCh **-áse?* • PW **-t-áse*
- (500) PM **-á’t*, **-át-its* ‘drink’ > Ni *-á’t*, *-át-is* • PCh **-át* (**-es*) • PW **-t-át*
- (501) PM **-áφ*, **-φá-ts* ‘wing’ > Mk 3 *t-ef*, *t-fe-ts* • Ni *-aφ*, *-<a>φa-s* • PCh **-hw<és>* • PW **-t-ex^w*
- (502) PM **-á’j*, **-áj-is* ‘yica bag’ > Ni *-a’j*, *-aj-is* • PCh **-éj?* (**-is*) • PW **-t-éj* (**-is*)
- (503) PM **-e*, **-é-l* ‘thorn’ > Mk 3 *t-i?* • Ni *-e?* (*-k*) • PCh 3 **hl-é?* (**-l*) • PW **-t-e*
- (504) PM **-éj* (**-its*) ‘name’ > Mk *-ij* (*-its*) • Ni *-ej* (*-is*) • PCh **-éj?* (**-is*) • PW **-t-éj* (**-is*)
- (505) PM **-éle(?)* ~ **-ále(?)* (**-j^h*) ‘inhabitant, inner’ > PCh **-éle?* (**-j^h*) ‘inhabitant, intestine’ • PW **-t-éle* (**-j^h*)

⁸The generic possessor prefix is reconstructed as PW *^ʔ*nó-* based on its reflexes in Weenhayek, Vejoz, and Guisnay. In Southeastern Wichí, the prefix *to-* of unknown origin is found instead (Nercesian 2014: 163); this prefix also requires the occurrence of *t-* (as in *to-t-os* ‘one’s son’) or *t-’...* (as in *to-t-’ate* ‘one’s breast’) in stems that were historically subject to the operation of Watkins’ Law.

⁹In Southeastern Wichí, erstwhile **ʔ*-initial nouns no longer preserve the archaic second-person forms with a zero allomorph of the person prefix, but rather attach the second-person prefix *ha-* (allomorph of *ʔa-* before glottalized consonants) to the stem augmented by Watkins’ Law, as in LB *ha-t-’ate* ‘your breast’ (Nercesian 2014: 164).

- (506) PM **-í(t)s'i(ʔ) (*-l)* ‘resin, sap’ > Ni *-its'i (-k)* • PCh 3 **hl-íts'iʔ (*-l)* • PW **-ł-íts'i*
- (507) PM **-ó (*-l)* ‘penis’ > Ni *-oʔ (-k)* • PCh **-óʔ (*-l)* • PW **-ł-ó (*-l^h)*
- (508) PM **-óʔ (*-j^h)* ‘seed’ > Mk 3 *ł-oʔ (-j)* • PCh **-óʔ* • PW **-ł-óʔ (*-j^h)*
- (509) PM **-ú^ʔp, *-úp-its* ‘nest’ > Mk 3 *ł-up (-its)* • Ni *-u^ʔp, -up-is* • PCh **-úp (*-is)* • PW **-ł-úp (*-is)*
- (510) PM **-ʔa(°)q* ‘rope, cord’ > PCh **-ʔák* • PW **-t-’aq*
- (511) PM **-ʔáX₂₃te(ʔ) (*-j^h)* ‘female breast’ > Ni *-ʔaxte (-j)* • PCh **-ʔáhateʔ (*-j^h)* • PW **-t-’áte (*-j^h)*
- (512) PM **-ʔáx (*-its)* ‘skin, bark’ > Mk *-ʔax (-its)* • Ni *-ʔáx (-is)* • PCh **-ʔáh, *-ʔáh-és* • PW **-t-’áχ, *-t-’áh-és*
- (513) PM **-ʔäsχa^ʔn, *-ʔäsχán-its* ‘meat’ > Mk *-ʔese^ʔn, -ʔesen-its* • Ni *-(ʔa)sxa^ʔn, -(ʔa)sxan-is* • PCh **-ʔisá^ʔn, *-ʔisán-is* • PW **-t-’isa^ʔn, *-t-’isán-is*
- (514) PM **-ʔi (*-l)* ‘liquid, juice’ > Mk 3 *ł-iʔ (-l)* • Ni *-ʔiʔ (-k)* • PCh **-ʔiʔ (*-l)* • PW **-t-’i (*-l^h)*
- (515) PM **-ʔútu(ʔ)* ‘urine’ > Ni *-ʔutu* • PCh **-ʔúhluʔ* • PW **-t-’útu*

Watkins’ Law also operates in disyllabic stems whose Proto-Mataguayan etyma begin with **x*, possibly due to the fact that the sequence **łx* evolved into **łh* > **ł* in the history of Wichí (§9.1.1.16), leading to the emergence of third-person forms starting with PW **ł-V...* The respective stems were subsequently reanalyzed as vowel-initial, as in (517) and (518). In the only example involving a monosyllabic stem, Watkins’ Law failed to apply (516).

- (516) PM **-xa, *-xá-l* ‘price’ > Ni *-faʔ (-k)* • PW **-ha, -há-l^h*
- (517) PM **-xájk^ʔu(ʔ) (*-l)* ‘egg’ > Ni *-fajk^ʔu (-k)* • PCh 3 **hl-éjk^ʔuʔ (*-l)* • PW **-ł-ík^j’u (*-l^h)*
- (518) PM **-xáte^ʔk, *-xáthe-j^h* ‘head’ > Ni *-fate^ʔtʃ, -fatxe-s* • PCh **-hétek, *-héhte-j^h* • PW **-ł-éteq, *-ł-éthe-j^h*

In addition to nouns, Watkins’ Law altered the distribution of two extremely frequent verbal prefixes, reconstructed as third-person prefixes in Proto-Mataguayan: PM **ji- / *j-* ‘3.A/S_I’ and **t- / *t-* ‘3.S_T’. Their Wichí reflexes, PW **ʔi- / *ji- / *hi- / *j-* and **ta- / *t-*, are no longer entirely restricted to the third-person form; their distribution is described below.

In I-class verbs, the prefix in question surfaces as PW **ʔi-* before most consonants, as **ji-* before uvulars and **h-* as **hi-* before glottalized consonants, and as **j-* before vowels or **ʔ* (in the latter case the sequence **j-ʔ...* fuses as **ʔj...*). The allomorphs **ʔi-* and **hi-* are conservative in that they are still restricted to the third person in Proto-Wichí, though in the Southeastern dialect they appear as *i-* after the dialectal 1NCL or impersonal prefix *to-*, yielding *t-i-*, as in LB *t-i-potsin* ‘we build, one builds’, *t-i-ʔwen* ‘we see, one sees’ (Nercesian 2014: 241). At least in the Southeastern dialect, the reflex of the allomorph **ji-* has a reduced variant *j-*, which appears in the first-person form and in the dialectal 1NCL/impersonal form: LB *ŋ-j-qon* ‘I like’, *to-j-qon* ‘we like, one likes’ (Nercesian 2014: 241), though no trace of *j-* is seen in the ’Weenhayek verbs of the same class, as in *ʔō-qáx* ‘I crush’ (Claesson 2016: 302). Finally, the allomorph **j-*, found in vowel-initial and **ʔ*-initial stems, has clearly been extended to the first-person form already in Proto-Wichí: PW **ŋ-j-én* ‘I set a trap’, **ŋ-ʔj-áχ* ‘I beat’ > ’Wk *ʔō-j-éŋ*, *ʔō-ʔj-áχ* (Claesson 2016: 116, 532); LB *ŋ-j-en* ‘I fish’, *ŋ-ʔj-aχ* ‘I beat’ (Nercesian 2014: 241). In the Southeastern dialect, the allomorph *j-* has been further extended to the dialectal 1NCL/impersonal form (LB *to-j-en* ‘we fish, one fishes’, *to-ʔj-aχ* ‘we beat, one beats’) and, in the case of *ʔ*-initial verbal stems but not of vowel-initial ones, to the second-person form, as in LB *la-ʔj-aχ* ‘you beat’ (Nercesian 2014: 241).

As for T-class verbs, the erstwhile third-person prefix has the shape **ta-* / **t-* in Proto-Wichí, and it is now used in all persons in that language except in imperatives, as documented by Alvarsson & Claesson (2014: 448) for ’Weenhayek, by Terraza (2009b: 237) for the Rivadavia subdialect of Southeastern Wichí, and by Nercesian (2014: 120, 239–240) for the Lower Bermejeño subdialect of Southeastern Wichí.

Watkins’ Law continued to operate after the diversification of Proto-Wichí. For exSciample, the prefix **ta-* / **t-* that encoded a third-person possessor in a handful of nouns in Proto-Wichí retains its original distribution in ’Weenhayek, as in *ʔō-kejʔ* ‘my hand/arm’, *ʔa-kejʔ* ‘your hand/arm’, *ta-kejʔ* ‘her/his hand/arm’ (Claesson 2016: 62, 294, 331). In the Rivadavia subdialect of Southeastern Wichí, its occurrence was extended to the first-person singular form but not to any other form: *ŋ-t-k^wej* ‘my hand/arm’, *a-k^wej* ‘your hand/arm’, *ta-k^wej* ‘her/his hand/arm’, *ʔa-k^wej* ‘our hand/arm’, *to-k^wej* ‘one’s hand/arm’ (Terraza 2009b: 69). In the Lower Bermejeño subdialect of Southeastern Wichí, the prefix in question is found in all inflected forms: *ŋ-t-k^wej* ‘my hand/arm’, *ʔa-t-k^wej* ‘your hand/arm’, *la-t-k^wej* ‘her/his hand/arm’, *ʔa-t-k^wej* ‘our hand/arm’, *to-t-k^wej* ‘one’s hand/arm’ (Nercesian 2014: 147), and is thus no longer identifiable as a person prefix in that specific subdialect. Another instance of a sporadic morphological change involving Watkins’ Law is the emergence of forms such as ’Wk *ʔō-lates* ‘my origin’, *ʔá-lates*

‘your origin’ (Claesson 2016: 221), where *la-* is a fossilized third-person prefix attached to the stem *-tes* ‘origin, fault, trunk, founding father’ (Claesson 2016: 93). The lack of vowel lengthening in the peninitial syllable in *ʔō-lates* betrays the recent formation of the aforementioned forms in *ʔweenhayek* (see §9.1.3.1 for more details).

9.2 From Proto-Wichí to the contemporary Wichí varieties

The dialectal division of Wichí presents considerable complexity and remains insufficiently studied. Early works include Tovar (1961: 36), who identifies three major dialects (Vejoz, Guisnay, and Noctén), and Najlis (1968), who adds two dialects to that list (Forest and Mataco Proper). Based on the speakers’ own assessment of mutual intelligibility, Nercesian (2014: 27) identifies a basic distinction between the Pilcomayeño and the Bermejeño dialect groups, spoken on the Pilcomayo and Bermejo Rivers, respectively; in turn, each of these dialect groups is divided in a binary fashion into an Upper and a Lower dialect. Further evidence supporting Nercesian’s (2014) classification can be found in Nercesian (2020) and Nercesian & Amarilla (2021). Our own examination of the published data has revealed the existence of a clear primary split of Wichí into two dialect clusters, as suggested by the distribution of certain phonological innovations.

NORTHWESTERN WICHÍ (Nercesian’s Pilcomayeño¹⁰) is a diverse group of dialects which are characterized by the simplification of word-initial consonant clusters (as in PW **ikʲénaχ* ‘mountain’, **kʲtáʔnih* ‘Chaco tortoise’ > **kʲénaχ*, **táʔnih*) and by the merger of Proto-Wichí **i* and **ɪ* (as in PW **t-ikʲu* ‘its egg’, **hílu* ‘yica bag’ > **t-ikʲu*, **hílu*). The most well-described dialects are *ʔweenhayek* and *Vejoz*.

- *ʔweenhayek* (= Tovar’s and Najlis’ Noctén, Nercesian’s Upper Pilcomayeño), spoken in the Bolivian department of Tarija, is characterized by the devoicing of all non-glottalized sonorants before a pause (Claesson 1994: 33–35), among other innovations; it is also the only Wichí variety known to retain the Proto-Wichí vowel length contrast. The phonology and lexicon of *ʔweenhayek* are known fairly well thanks to the contributions of Claesson (1994, 2016).

¹⁰We do not adopt Nercesian’s label in this book in order to avoid potential confusion: note that the Vejoz variety (classified as Pilcomayeño by Nercesian) is actually spoken on the Bermejo River.

9.2 From Proto-Wichí to the contemporary Wichí varieties

- Vejoz (= a fraction of Nercesian's Lower Pilcomayoño), spoken in the Argentine province of Salta, is represented in our study by the subdialects of Misión Chaqueña (Viñas Urquiza 1974, Gutiérrez & Osornio 2015) and Paraje La Paz (Fernández Garay 2006–2007). A salient innovation exclusive to Vejoz is the semantic shift which transformed PW *ʔwáχ 'stagnant water' into the basic term for 'water', thus replacing PW *ʔinát.¹¹
- As for the dialectal zone referred to as Guisnay (by Tovar 1961 and Najlis 1968, from Wichí *W'enhayey* [w'eṅãjej]) or Lower Pilcomayoño (Nercesian 2014), we have as of yet been unable to verify its validity by means of identifying its precise limits and defining innovations. In part, this is due to the scarcity of the available data. We dispose only of a basic phonological description of the variety spoken in Misión La Paz (Avram 2008).
- For other lects, which could be suspected on geographical grounds to belong to the purported Guisnay/Lower Pilcomayoño dialect zone, only some isolated words have been documented (Spinelli 2007 and Fernández Garay & Spinelli 2009 for Misión Santa María; Fernández Garay & Spinelli 2009 for Santa Victoria Este, Las Vertientes, Lapacho Mocho; Censabella 2009 for Misión El Carmen; Viñas Urquiza 1974 and Cayré Baito 2015 for Tartagal). In fact, at least the Lapacho Mocho lect shows some features typical of Vejoz (such as the third-person prefix *le-*, as opposed to *ha-* in Tartagal and *la-* in Misión La Paz). The Tartagal lect shares with Vejoz the irregular reflex *e* (< PW **a*) in [tɕe'no] 'armadillo'. As for the other lects, we provisionally do not include them into any dialect group; throughout this section, we always specify the community where a given phenomenon was reported when referring to the data of such varieties.

SOUTHEASTERN WICHÍ (Nercesian's Bermejeño, roughly corresponding to Najlis' Mataco Proper; not mentioned by Tovar) encompasses the variety spoken in Rivadavia, Salta (classified by Nercesian 2014 as Upper Bermejeño) as well as Nercesian's Lower Bermejeño, spoken in the Argentine provinces of Formosa and Chaco to the south from the town of Ingeniero Suárez. Its most notable

¹¹Nercesian & Amarilla (2021: 280–282) suggest that Vejoz ʔwáχ 'water' could be a retention, whereas other Wichí varieties would have replaced it with reflexes of PW *ʔinát, claimed to be an innovation by Nercesian and Amarilla. This seems quite unlikely to us, since Nivačle and Chorote use cognates of PW *ʔinát – and not of PW *ʔwáχ – for 'water'. In any case, the Vejoz innovation must be quite old, because the earliest known record of that variety (a 1795 manuscript by Esteban Primo de Ayala) has <guag> 'water' (Combès & Montani 2020: 507), which we tentatively phonologize as ʔwáh.

phonological feature is the Southeastern Wichí vowel shift (§9.2.2.2). There are small differences between the varieties spoken in Rivadavia (Terraza 2009b), Ingeniero Suárez (Cayré Baito & Carpio 2009, Cayré Baito 2015), and the communities located to the east of El Sauzalito (Lower Bermejeño *stricto sensu*), including Misión Nueva Pompeya, Laguna Yema, Pozo del Mortero, Juan G. Bazán, Las Lomitas, and Pozo del Tigre (see Nercesian 2014 for a comprehensive description, Braunstein 2009 for a vocabulary based on data from Bazán, and Censabella 2009 for some fragmentary data from specific communities).

In most cases, the Lower Bermejeño (as documented by Nercesian 2014) and 'Weenhayek (as documented by Claesson 2016) reflexes suffice to reconstruct a Proto-Wichí form. These varieties, spoken in the extreme southeast and in the extreme north of the Wichí territory, respectively, differ phonologically in all possible dimensions: there are almost no innovations shared by Lower Bermejeño with 'Weenhayek to the exclusion of some other Wichí variety (one exception is **t̥ > la-*; see §9.2.1.13). The etymological dictionary in Chapter 10 systematically lists reflexes in these two varieties as well as in Vejoz (Misión Chaqueña subdialect).

In what follows, we examine the reflexes of PW segments and suprasegmental units in the contemporary dialects. As a detailed phonological analysis is available only for a handful of Wichí lects, we make no attempt at differentiating between sound changes with and without phonological significance.

In Figure 9.1, the numbers correspond to Braunstein's (2009) numeration of the Wichí groups. Four main dialects ('Weenhayek, Guisnay, Vejoz, and Southeastern) are colored in light blue, green, magenta, and orange, respectively. Gray means that we lack conclusive information on the dialectal apurtenance of a given group.

The lects examined in this section and the sources of linguistic data on each of them are shown in Table 9.4.¹²

¹²Two of our sources – Avram (2008) and Nercesian (2014) – are possibly based on multiple lects. Of Avram's (2008) consultants, one is from Las Vertientes – a community identified with the Santa Teresa group in Braunstein (2009: 3), another one is born to a father from Las Vertientes and a non-Wichí mother, and the third one is reported to have moved to Misión La Paz from the province of Formosa. That way, the variety described by Avram (2008) may be in fact representative of a region located to the southeast from Misión La Paz. In turn, Nercesian's (2014) grammar is based on data collected in multiple communities located within the triangle delimited by Pozo del Tigre, Misión Nueva Pompeya, and Ingeniero Juárez. She does not indicate the exact provenance of the data she cites and does not report any diatopic variation.

9.2 From Proto-Wichí to the contemporary Wichí varieties

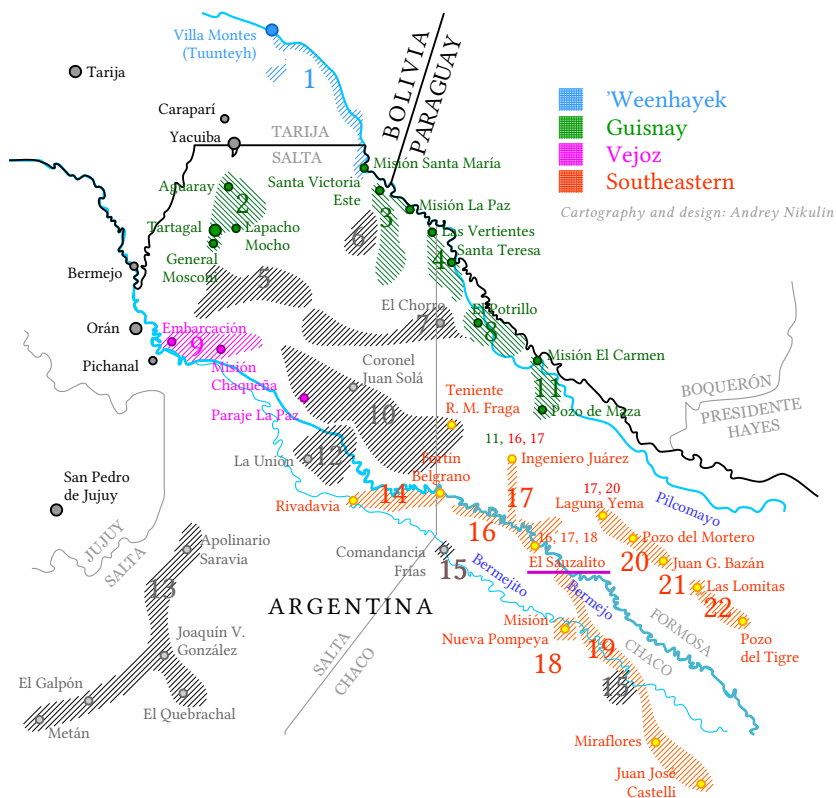


Figure 9.1: Map of the Wichí-speaking area

9.2.1 Consonants

This section describes the evolution of the Proto-Wichí consonants in the contemporary varieties of Wichí.

9.2.1.1 PW $*k^j$ and $*k^j'$

The Proto-Wichí reflexes of PM $*k$ and $*k'$ in onsets are reconstructed as palatalized velar stops (IPA $*[k^j]$, $*[k^j']$). Their original articulation is faithfully retained both in the Rivadavia subdialect of Southeastern Wichí (519), and in some speakers in El Sauzalito (520), as well as in the Misión La Paz subdialect of Guisnay (521). This is also the predominant realization in 'Weenhayek and in Misión El

Table 9.4: Sources on Wichí lects

| community | sources | Wichí group according to Braunstein (2009) |
|-----------------------|---|--|
| 'Weenhayek | Claesson (1994, 2016) | Villa Montes |
| Misión Santa María | Spinelli (2007), Fernández Garay & Spinelli (2009) | Villa Montes |
| Santa Victoria Este | Fernández Garay & Spinelli (2009) | La Paz |
| Misión La Paz | Avram (2008) | La Paz |
| Las Vertientes | Fernández Garay & Spinelli (2009) | Santa Teresa |
| Misión El Carmen | Censabella (2009) | Pozo de Maza |
| Juárez (Barrio Viejo) | Cayré Baito & Carpio (2009), Cayré Baito (2015), Nercesian (2014) | Ingeniero Juárez |
| El Sauzalito | Censabella (2009), Nercesian (2014) | El Sauzalito |
| Bazán | Braunstein (2009), Censabella (2009), Nercesian (2014) | Bazán |
| Colonia Muñiz | Censabella (2009), Nercesian (2014) | Pozo del Tigre |
| Teniente Fraga | Censabella (2009) | Ruta 81 |
| Rivadavia | Terraza (2009b) | Rivadavia |
| Paraje La Paz | Fernández Garay (2006–2007), Fernández Garay & Spinelli (2009) | (?) Ruta 81 |
| Misión Chaqueña | Gutiérrez & Osornio (2015) | Embarcación |
| Embarcación | Viñas Urquiza (1974) | Embarcación |
| Lapacho Mocho | Fernández Garay & Spinelli (2009) | Mosconi |
| Tartagal | Viñas Urquiza (1974), Cayré Baito (2015) | Mosconi |

Carmen (522), but in these varieties an affricate realization ([tʃ(ʰ)] or [tʃ(ʰ)]) is increasingly frequent in younger speakers' speech (Claesson 1994: 14).

(519) Rivadavia Wichí (Terraza 2009b: 36)

- [kʲeʲjɔʔ] 'granddaughter' < PW **kʲéjã*
- [kʲaʲlaʔ] 'lizard' < PW **kʲáʲlah*
- [kʲul] 'locust' < PW **kʲólʰ*

9.2 From Proto-Wichí to the contemporary Wichí varieties

- (520) Sauzalito Wichí (Censabella 2009: 132)
- [i'k'ot] 'it is red' < PW *ʔik'át
 - [k'ɛ'ɬek^w] 'quebracho tree' < PW *k'ɛ'ɬjuk^w
- (521) Misión La Paz Wichí (Avram 2008: 44–45)
- [otk'umɬi] 'I work' < PW *ŋ-t-k'úm-tih
 - [k'ajohi] 'hot' < PW *k'áj'jo-hi
- (522) Misión El Carmen Wichí (Censabella 2009: 131–132, 138)
- [k'a'laʔ] 'lizard' < PW *k'á'lah
 - [ni'k'im] 'I am thirsty' < PW *ŋ-k'im
 - [k'ɬu'kuuk] 'butterfly' < PW *k'ók'ok^w
 - [k'e'ʔe] (older) ~ [tɕe'eʔ] (younger) 'parakeet sp.' < PW *k'ék'j'e
 - [ŋtʃem'hi] 'I work' < PW *ŋ-t-k'úm-tih

In some varieties, the occurrence of [k^j] is positionally restricted. In Santa Victoria Este and in the Vejoz community of Paraje La Paz, [k^j] may occur only before front vowels in younger speakers' speech, and even then it is reported to freely vary with [tʃ] ~ [tɕ] (523). Before non-front vowels, [k^j] is not documented; at least in Paraje La Paz, [tɕ] is the most common realization, but [tʃ] and [tʰ] are also possible (Fernández Garay 2006–2007). In Southeastern Wichí as spoken in Teniente Fraga, [tɕ] is predominant, as in (524a)–(524c), but one also finds [k^j] (524d).

- (523) Santa Victoria Este or Paraje La Paz Wichí (Fernández Garay & Spinelli 2009: 160)
- [k'ili'tɕuk] ~ [tʃili'tɕuk] 'owl' < PW *k'ilúk'uk^w
 - [k'i'nax] ~ [tʃi'nax] 'metal, iron' < PW *k'ínax
 - [oɬetʃe'his] ~ [oɬek'e'his] 'my trousers' < PW *ŋ-t-ék'e-hi-s
- (524) Teniente Fraga Wichí (Censabella 2009: 130–132)
- [tɕoʔ'hêt] 'arrow' < PW *-k'^j'áhe
 - [tɕe'tɕ'eʔ] ~ [tʃe'tʃeʔ] 'parakeet sp.' < PW *k'ék'j'e
 - [tɕɛ'ɬek^w] 'quebracho tree' < PW *k'ɛ'ɬjuk^w
 - [k'ɬu'ʔe] 'ear' < PW *-k'^j'óte

Elsewhere, the affrication of PW **k^j(ʼ)* has progressed to a point where the palatalized velar realization is no longer available, giving rise to [tʃ(ʼ)] ~ [tʃ(ʼ)]. For example, in Tartagal, [tʃ] ~ [tʃ] have been documented as exclusive realizations of the phoneme in question (525). In Lapacho Mocho and Misión Santa María, [tʃ] and [tʃ] occur in free variation with other, but also with [tʃ] before [e] and [o] (526). Regarding Lower Bermejeño, Nercesian (2014: 51) characterizes the sound in question as a “palatal affricate” (likely [tʃ]), though she also reports that two of her consultants – both young women – produced [tʃ] instead. Based on data recorded in Bazán, Censabella (2009) transcribes mostly [tʃ], as in (527a)–(527e); in one instance its glottalized equivalent is transcribed as alveopalatal (527f); Braunstein (2009) also characterizes the affricate in question as “palatal” in the Bazán subdialect. Similarly, [tʃ] is usually found in Colonia Muñiz, a community located between Las Lomitas and Pozo del Tigre, as in (528a)–(528e); this segment is transcribed as alveopalatal in one example (528f). Only [tʃ] is documented in Ingeniero Juárez (Barrio Viejo), as shown in (529). Finally, only an affricate realization is reported in Vejoz as spoken in Misión Chaqueña and in the variety of Las Vertientes (Viñas Urquiza 1974, Gutiérrez & Osornio 2015, Fernández Garay & Spinelli 2009: 160), but the data we dispose of are not accompanied by narrow transcriptions.

(525) Tartagal Wichí (Cayré Baito 2015: 359–360, 366)

- a. [ʃi'tʃu] ‘its egg’ < PW **t-ík^ju*
- b. [tʃe'no] ‘armadillo’ < PW **k^janhóh*
- c. [tʃi'nax] ‘iron’ < PW **k^jinaχ*
- d. [tʃe'nax] ‘mountain’ < PW **tk^jénaχ*

(526) Lapacho Mocho or Misión Santa María Wichí (Fernández Garay & Spinelli 2009: 160)

- a. [si'tʃet] ~ [si'tʃet] ~ [si'tʃet] ‘large bag’ < PW **sik^jet* ‘mesh purse’
- b. [le'tʃo] ~ [le'tʃo] ‘short’ < PW **t-k^jo* ‘its bottom, depth’

(527) Bazán Wichí (Censabella 2009: 130–132, 134, 138, 140)

- a. [tʃe'tʃ'e(?)] ‘parakeet sp.’ < PW **k^jék^je*
- b. [tʃe'tʃek^w] ‘quebracho tree’ < PW **k^jéʃjuk^w*
- c. [nitʃottʃe?] ‘similar’ < PW **ni-k^ját-k^je*
- d. [tʃef^w] ‘sweat’ < PW **k^júx^w*

9.2 From Proto-Wichí to the contemporary Wichí varieties

- e. [laxə'tʃa] (older) ~ [lawx'tʃa] (younger) 'her/his father' < PW
**ɬ-x^wk'ah*
- f. [tɕ'o'hēt] 'arrow' < PW **-k'^jáhe*

(528) Colonia Muñiz Wichí (Censabella 2009: 130, 132, 138)

- a. [i'tʃot] 'it is red' < PW **ʔik'át*
- b. [tʃ'u'te] 'ear' < PW **-k'óte*
- c. [ɲ'tʃim] 'I am thirsty' < PW **ɲ-k'ím*
- d. [tʃu'kuk] 'butterfly' < PW **k'ók^wok^w*
- e. [ɲtʃem'xli] 'I work' < PW **ɲ-t-k'úm-tih*
- f. [tɕa'laʔ] 'lizard' < PW **k'á'lah*

(529) Ingeniero Juárez (Barrio Viejo) Wichí (Cayré Baito 2015: 360, 366)

- a. [ɬɛ'tʃɛ] 'its egg' < PW **ɬ-ik'hu*
- b. [tʃa'nɔ̃] 'armadillo' < PW **k'anhóh*

9.2.1.2 PW **q* and **k^w*

In §9.1.1.2 and §9.1.1.17, we saw that PW **k^w(')* goes back either to PM **kɸ(')* (when it occurs in onsets) or to PM **k* (when it occurs in codas following a back vowel). By contrast, as discussed in §9.1.1.2, PW **q(')* goes back to PM **q(')* in onsets or codas (note that PM **q* is not known to have occurred following non-low vowels in codas). PW **q* can also continue PM **k* when it occurs in the coda position following a front vowel; in this case, it actually still surfaces as [k] in most contemporary Wichí varieties. In fact, one could simply say that PW **/q/* and **/k^w/* are neutralized as [k] in the coda position following front vowels, as in PW **ji[k]* 's/he goes away', **-whájene[k]* 'son-in-law', **x^wéte[k]* 'mortar', **-téme[k]* 'bile'. We follow Nercesian (2014: 49–50) in analyzing PW **[k]* as a positional allophone of **/q/*, which occurs in the coda position after a front vowel.

As a result, the synchronic distribution of the consonants **q* and **k^w* was asymmetrical in the coda position in Proto-Wichí: only **q* could occur following the vowels **a*, **e*, and **i* (note the allophony: **/aq/* **[aq]*, **/eq/* **[ek]*, **/iq/* **[ik]*), and only **k^w* was found following the vowels **o* and **u*. PW **q* and **k^w* contrasted following the vowel **á* (compare **ɬ-áq* 'her/his food', **tsáháq* 'chajá bird', but **níjàk^w* 'rope, cord', **nitâk^w* 'two') and in the onset position (**ɬ-qéj* 'her/his custom' vs. **ta-k^wej* 'her/his hand').

As anticipated above, the Wichí sounds [q] and [k] are most commonly analyzed as allophones of the same phoneme, represented as /q/ by Nercesian (2014: 49–50) and as /k/ by Avram (2008: 43) and Censabella (2009: 136). The original distribution of the allophones (uvular in onsets and in codas following the low vowels *a* and *á*; velar in codas following the front vowels *e* and *i*) is preserved in varieties such as Weenhayek and the Lower Bermejeño subdialect of Southeastern Wichí. Other varieties, however, may display innovations. For example, in the Rivadavia subdialect of Southeastern Wichí only the allophone [q] is reported, even after front vowels, as in *jiq* ‘s/he goes away’ (Terraza 2009a: 48). By contrast, in the variety of Paraje La Paz, /q/ and /k/ are synchronically analyzed as phonemes (Fernández Garay 2006–2007): while in many cases the distribution of these consonants matches fairly well the allophony pattern reconstructed for Proto-Wichí, as in (530a)–(530g), in several words one finds [k] or [kʰ] in onsets, as in (530h)–(530l), or in codas following non-front vowels, as in (530m). Note that in the last case the PW etymon did contain a front vowel.

(530) Paraje La Paz Wichí (Fernández Garay 2006–2007)

- a. [qaˈlaq] ‘gray heron’ < PW *qaláq
- b. [oˈqoj] ‘I put clothes on’ < PW *ṅ-qhã-jʰ ‘my clothes’
- c. [laˈqɛ] ~ [laˈqɛ] ‘it shines’ < PW *laqʰe
- d. [ˈqej] ‘custom’ < PW *-qéj
- e. [oˈpaq] ‘I paint’ < PW *ṅ-páq
- f. [xʷeˈtek] ‘mortar’ < PW *xʷéte[k]
- g. [teˈmek] ‘bile’ < PW *-téme[k]
- h. [iħoˈkex] ‘all’ < PW *ni-ħóq-eχ
- i. [kalaˈtu] ‘hail’ < PW *qalátu
- j. [oˈkoj] ‘I play’ < PW *ṅ-qój
- k. [isˈkat] ‘s/he hides’ < PW *ʔi-sqat
- l. [kʰaˈtas] ‘flies’ < PW *qʰáta-s
- m. [ˈmak] ‘thing’ < PW *xʷmáje[k]

Censabella (2009) documents the velar allophone in onsets in the varieties spoken in Misión El Carmen (531), Teniente Fraga (532), and (variably) El Sauzalito (533). The uvular allophone is attested in Colonia Muñiz (534) and Bazán (535).

(531) Misión El Carmen Wichí (Censabella 2009: 130, 137)

- a. [kaˈnu] ‘needle’ < PW *qáno

9.2 From Proto-Wichí to the contemporary Wichí varieties

- b. [ɲka^hɲi] ‘my pocket’ < PW *ɲ-qhã-j-hih
 - c. [is'kat] ‘s/he steals’ < PW *ʔi-sqat
- (532) Teniente Fraga Wichí (Censabella 2009: 137)
- a. [la'k'ax] ‘her/his mouth’ < PW *ʔ-q'áχ
- (533) El Sauzalito Wichí (Censabella 2009: 137)
- a. [ɲka^hɲi] ‘my pocket’ < PW *ɲ-qhã-j-hih
 - b. [la'k'ax] ‘her/his mouth’ < PW *ʔ-q'áχ
 - c. [is'qat] ‘s/he steals’ < PW *ʔi-sqat
- (534) Colonia Muñoz Wichí (Censabella 2009: 137)
- a. [qa'nu] ‘needle’ < PW *qáno
 - b. [to'q'ax] ‘one’s mouth’ < PW *-q'áχ ‘mouth’
 - c. [is'qat] ‘s/he steals’ < PW *ʔi-sqat
- (535) Bazan Wichí (Censabella 2009: 137)
- a. [ɲqoh'ɲi] ‘my pocket’ < PW *ɲ-qhã-j-hih

In her description of the Guisnay dialect as spoken in Misión La Paz, Avram (2008: 43–44) posits a phoneme /k/ (a reflex of PW */q/) and states that “[t]here are no minimal pairs to justify the existence of both /k/ and /q/ as phonemes. It is difficult to determine the exact environment for the allophones, so it appears they occur in free variation”. An inspection of the examples given in the cited work, however, shows that the distribution of [k] and [q] in Misión La Paz is similar to the one reconstructed for Proto-Wichí: [q] occurs in onsets as well as in codas following low vowels, and [k] occurs in codas following front vowels (536).¹³ The glottalized counterpart of the consonant in question, which occurs only in onsets, is always uvular in Misión La Paz (Avram 2008: 44), as shown in (536r)–(536v).

¹³Avram (2008: 43, 82) gives some possible counterexamples to this distribution: *katetsek* ‘star’, *owuke?* ‘my house’, *kamionwo?* ‘truck driver’. The former word is highly anomalous, and contains what looks like a Nivaçle plural suffix attached to a Wichí root (compare PW *qates ‘star’, *qatéts-el^h ‘stars’); note that all of Avram’s (2008) consultants understand Nivaçle to some extent, and one of them was born to a Nivaçle mother. The Proto-Wichí etymon of *owuke?* ‘my house’ is PW *ɲ-wuk^w-e, and thus instantiates loss of labialization in *k^w and not the alleged change *[q] > *[k]. Finally, *kamionwo?* ‘truck driver’ is derived from the Spanish loan *kamion* (< *camión* ‘truck’).

(536) Misión La Paz Guisnay (Avram 2008: 43–44, 50–51, 54–55, 64–65, 69, 87–88, 95, 99–100)

- a. [qɑ́qɑ́tax] ‘turkey’ < PW *qáʔqɑ́-tax
- b. [hãpqiʔa] ‘it is not’ < PW *hãpqhitʔah
- c. [jaqɑʔtuʔ] ‘yellow’ < PW *qáʔtu
- d. [laqas] ‘horsefly’ < PW *laqas
- e. [qates] ‘star’ < PW *qates
- f. [qatetsel] ‘start’ < PW *qatéts-el^h
- g. [ʔsʔilaq] ‘only’ < PW *ʔsʔilaq
- h. [tsoʔnataq] ‘deer’ < PW *tsóʔna-taq ‘marsh deer (*Blastocerus dichotomus*)’
- i. [oɾɑq] ‘sachasandía (*Capparis salicifolia*)’ < PW *ʔónha-q ~ *ʔónha-k^w
- j. [oɽetek] ‘my head’ < PW *ɲ-t-éte[k]
- k. [notsek] ‘to sew’ < PW *ʔnó-tse[k]
- l. [nosek] ‘to sweep’ < PW *ʔnó-se[k]
- m. [h^weɽek] ‘mortar’ < PW *x^wéte[k]
- n. [nowɑɽek] ‘wasp’ < PW *nówaɽe[k] ‘kind of wasp (*lechiguana*)’
- o. [nekkʔaʔ] ‘year’ < PW *ne[k]kʔám
- p. [nekkʔeʔ] ‘s/he comes with her/him’ < PW *n-e[k]-kʔe
- q. [tsiliklik] ‘kind of eagle’ < PW *tsili[k]li[k] ~ *tsili[k]lik ‘snail kite (*Rostrhamus sociabilis*)’
- r. [qʔaxtax] ‘person with a big mouth’ < PW -qʔax-tax
- s. [laqʔas] ‘their mouths’ < PW *ʔ-qʔá-s
- t. [ih^waqʔan] ‘it is blue’ < PW *ʔix^waqʔan
- u. [saqʔi] ‘Argentine boa’
- v. [woqʔo] ‘owl’ < PW wóqʔoh

Spinelli (2007) reports that [q] occurs as a free variant of /k/ in the variety of Misión Santa María (537).

(537) Misión Santa María Wichí (Spinelli 2007)

- a. [qaʔtaq] ~ [kaʔtak] ‘fly’ < PW *qʔátaq
- b. [oqaʔla] ~ [okaʔla] ‘my thigh’ < PW *ɲ-qáʔlá ‘my leg’

9.2 From Proto-Wichí to the contemporary Wichí varieties

The data above show that the original distribution of the allophones [k] and [q] is preserved to a great extent at least in the northern ('Weenhayek, Misión La Paz) and southeastern (Lower Bermejeño) extremes of the Wichí territory. Deviations are found in the central part of the Wichí territory: in Paraje La Paz, Teniente Fraga, Misión El Carmen, and El Sauzalito at least some instances of [q] have changed to [k]; in Misión Santa María [q] and [k] occur in free variation; whereas in Rivadavia, by contrast, the allophone [k] no longer exists, and /q/ now surfaces as [q] even in codas following front vowels.

We now turn to the evolution of Proto-Wichí $*k^w$. While it is regularly preserved in varieties such as Lower Bermejeño Wichí, it may delabialize to [k] in some other dialects.¹⁴ In his description of the phonology of 'Weenhayek, Claesson (1994: 19) states that “in the current phonetic development, the loss of labialization is an increasing phenomenon and has reached a level where the phoneme is affected in all positions, except those adjacent to rounded vowels within the syllable” (that is, forms such as $k^wútsax$ ‘caraguatá (*Bromelia serra*)’, tok^w ‘not’, and $x^wítsuk^w$ ‘palm’ are unaffected by the delabialization). Claesson (1994: 19) also observes that forms such as $yí[k]eh$ ‘she/goes for it’, $ʔówu[k]e?$ ‘my house’, and $ʔó[k]ej?$ ‘my hand’ are nowadays “more popular” than the more conservative variants $yí[k^w]eh$, $ʔówu[k^w]e?$, $ʔó[k^w]ej?$. Delabialization can also be seen to various extent in some other varieties. For example, Fernández Garay (2006–2007) documents the Paraje La Paz reflex of PW $*k^jók^wok^w$ ‘butterfly’ as [tʃoˈkok]. According to Censabella (2009: 139), /k^w/ may optionally lose labialization in the coda position, especially in the speech of younger speakers at least in the Bazán and Teniente Fraga varieties, as in Bazán /tewuk^w/ [teˈwuk^w ~ teˈwuk] ‘river’, Teniente Fraga /atsek^w/ [aˈtsek^w ~ aˈtsek] ‘bola verde tree’ (< PW $*téwok^w$, $*ʔátsuk^w$). At least in Lower Bermejeño Wichí as spoken in Bazán (younger speakers), /k^w/ may surface as prelabialized rather than postlabialized: Bazán /tselek^w/ [tseˈleˈk] ‘entangled’ (Censabella 2009: 140). Yet another process involving the delabialization of /k^w/ is proposed in the literature: Terraza (2009a: 63) states that /k^w/ delabializes to [k] before a high rounded vowel /u/ in the Rivadavia subdialect of Southeastern Wichí, as in /nk^wux^wa/ [nkuˈx^wa] ‘I feel cold’, /juk^wus/ [jukus] (no gloss provided). Note, however, that at least the former datum goes back to PW $*ŋ-qóx^wa$ ‘I feel cold’, and thus does not involve a reflex of PW $*k^w$ at all. Further

¹⁴A significantly less common development is the change of PW $*k^w$ to [q^w]. This allophone is reported in the word-final position in the Misión La Paz subdialect of Guisnay, as in $h^wítsuq^w$ ‘palm’ (Avram 2008: 44). Between non-front vowels, $*k^w > *q^w$ can be further delabialized to [q], as in $h^wítsuqat$ ‘group of palm trees’, $atsuqat$ ‘group of bola verde trees’ < PW $*x^wítsúk^w-at$, $*ʔátsuk^w-at$. The allophone [q^w] also occurs in free variation with [k^w] following back vowels in Lower Bermejeño Wichí (Nercesian 2014: 49).

dialectological research is needed to clarify the patterns of */k^w/ delabialization throughout the Wichí-speaking territory.

9.2.1.3 PW *χ and *h

As we saw in §9.1.1.3, the Proto-Mataguayan system of three guttural fricatives (PM *x, *χ, and *h) was reduced to a system composed of only two consonants, represented in this book as PW *χ and *h. PW *χ (< PM *x or *χ) is found almost exclusively in the coda position; its occurrences in onsets are rare and always result from late (post-PM) resyllabification (*Vχ.CV > *V.χV). PW *h is very common in simplex or complex onsets, where it goes back to PM *x, *χ, or *h, but it is also sometimes found in the coda position (word-finally only), reflecting PM *h or zero (§9.1.1.11).

The only known variety that preserves the original (Proto-Wichí) distribution of PW *χ and *h is 'Weenhayek (Claesson 1994: 19–25), where its reflexes are represented as *x* and *h* in this book. Note, however, that /x/ appears to surface as uvular ([χ]) at least after an *á*, as can be inferred from the following statement by Claesson (1994: 19–20, fn. 23): “the reader should be aware that there is a clear phonetic difference between the fricative sound of, for example, instance, *ʔáj* [our *ʔáx* – A.N., J.C.] ‘your skin’ and the corresponding one in *tij* [our *tix* – A.N., J.C.] ‘(s)he digs it’. In the groups of sounds represented in this paper by [x] and [xw], the nonlabialized fricative produced after [a] seems to come nearest to the uvular position”.

Most other varieties of Wichí retain the PW opposition between two guttural fricatives in the onset position only (the reflex of PW *χ is variably represented as *x* or *χ*; the reflex of PW *h is variably represented as *h* or *h̃*), but not in codas: all dialects except 'Weenhayek share the loss of word-final PW *h.

(538) Loss of word-final PW *h in the Wichí dialects (Terraza 2009a,b, Censabella 2009, Nercesian 2014, Claesson 2016)

- a. PW **k'á'lah* ‘lizard’ > 'Wk *k'á'lah*, but Rivadavia [k^ha'la], LB *tfa'la*
- b. PW **k'anhóh* ‘armadillo’ > 'Wk *k'anhóh*, but Rivadavia [k^ha'ɲu], LB *tʃaɲu*
- c. PW **-qoh* ‘mother’ > 'Wk *-qoh*, but Rivadavia [-'qu], LB *-qu*
- d. PW **-qhá-j-hih* ‘pocket’ > 'Wk *-q^háçih*, but Bazán [ɲqoh'ɲi], El Sauzalito [ɲka^hɲi], Misión El Carmen [ɲka^hɲi], LB *-q^hoçi*
- e. PW **tsó'nah* ‘brocket’ > 'Wk *tsó'nah*, but Rivadavia [tsu'na], LB *tsu'na*

9.2 From Proto-Wichí to the contemporary Wichí varieties

Some authors report only one guttural fricative for certain Wichí varieties, suggesting a merger of PW $*\chi$ and $*h$ (except where PW $*h$ was lost word-finally). A case in point is the Misión Chaqueña subdialect of Vejoz, where Viñas Urquiza (1974) symbolizes the reflexes of both fricatives as h , and the symbols x and χ are not even employed. For the Paraje La Paz subdialect of Vejoz, Fernández Garay (2006–2007) reports only one guttural fricative, which is claimed to surface as $[h]$ preceding vowels (539a)–(539b), as $[h] \sim [x]$ preceding a consonant (539c), and as $[x] \sim [\chi]$ before a pause (539d). In the variety of Misión Santa María, Spinelli (2007) reports that $[h]$ and $[x]$ freely vary between vowels (540a) and before a consonant (540b); word-finally, $[x]$ is reported to freely vary with $[\chi]$ (540c);¹⁵ word-initially, only $[h]$ is attested, as in (540d)–(540e). In her description of the Guisnay dialect as spoken in Misión La Paz, Avram (2008) posits a phoneme $/h/$ with two allophones, $[h]$ (word-initially and word-medially, as in $[ah\grave{a}t]$ ‘devil’) and $[x]$ (word-finally and – rarely – word-medially, as in $[isaxije]$ ‘handsome’), though she gives no explanation for the fact that both allophones occur between vowels.

(539) Paraje La Paz Wichí (Fernández Garay 2006–2007)

- a. $[hu'pel]$ ‘shadow’ < PW $*hp\acute{e}l^h$
- b. $[aha'juk]$ ‘mistol (*Ziziphus mistol*) tree’ < PW $*?ah\acute{a}j-uk^w$
- c. $[opah'tit] \sim [opax'tit]$ ‘I squeeze’ < PW $*\eta-?p\acute{a}\chi-tit$ ‘I fix, I join (tr.), I crush’
- d. $[asi'nax] \sim [asi'nax\chi]$ ‘dog’ < PW $*?asin\grave{a}\chi$

(540) Misión Santa María Wichí (Spinelli 2007)

- a. $[ot\acute{f}a'huje] \sim [ot\acute{f}a'xuje]$ ‘I listen’ < PW $*\eta-t-k^j'\acute{a}'hu-jeh$
- b. $[tsoh'nat] \sim [tsox'nat]$ ‘knife’ < PW $*tsonhat$
- c. $[la'ko\chi] \sim [la'kox]$ ‘its foam’ < PW $*\dagger-qh\acute{o}x^w$
- d. $[ho'san]$ ‘ax’ < PW $*h\acute{o}sa'n$
- e. $[hoki'nax]$ ‘dove’ < PW $*h\acute{o}k^winax$

We are not convinced that PW $*\chi$ and $*h$ actually merged in Guisnay and Vejoz: recall that PW $*\chi$ in onsets was a low-frequency segment in the protolanguage, and it is thus possible that Viñas Urquiza (1974) and Fernández Garay (2006–2007) simply missed the opposition in question, whose functional load is in any case expected to be very low. This is confirmed by an inspection of

¹⁵Note that in this example we are in fact dealing with a reflex of $*x^w$.

another source on Vejoz, Gutiérrez & Osornio (2015), which systematically employs the grapheme <h> where we reconstruct **h* (except, of course, when **h* is lost word-finally), and the grapheme <j> where we reconstruct **χ*, including the onset position, as in <lew'ijiyej> 'to be startled' (Gutiérrez & Osornio 2015: 37), from PW **-ʷi'χij-eχ*. It remains to be established whether any Wichí dialect has effectively merged PW **χ* and **h*.

In Lower Bermejeño Wichí, there is a further process involving morpheme-final instances of /χ/ preceded by front vowels. In such cases, /χ/ surfaces as [x] when it occurs in the coda position, as we have seen above. However, when it resyllabifies as an onset before a vowel- or a /h/-initial morpheme, /χ/ palatalizes to [ʃ] in Lower Bermejeño (Nercesian 2014: 109–111), as shown in (541).

(541) Southeastern Wichí (Lower Bermejeño) (Nercesian 2014: 110–111)

- a. ʔi-leχ-eχ [ʔi'leʃeχ]
3.I-wash-APPL
's/he washes it with'
- b. ɳ-leχ-hen [ɳ'leʃen]
1-wash-HEN
'I wash them'
- c. ʔi-leχ-hu [ʔi'leʃu]
3.I-wash-APPL
's/he washes it from inside'
- d. ʔi-that-eχ-hu [ʔi,tʰã'teʃu]
3.I-throw-APPL-APPL
's/he washes it from inside'
- e. ɳ-tʃoχ-eχ-e [ɳ'tʃoχeʃe]
1-bring-APPL-LOC
's/he barter it'
- f. ʔnojiχ=na [ʔnoʃiʃa]
path=this
'this path'
- g. ha-ʔa-qa-tuweχ-hi [hã,ʔaqa,tuweʃi]
NEG-2.POSS-ALZ-jug-NEG
'it is not your jug'

We suggest that the positionally conditioned palatalization of /χ/ arose in Lower Bermejeño due to an overgeneralization of an inherited process, whereby

9.2 From Proto-Wichí to the contemporary Wichí varieties

/q/ in codas alternates with /tʃ/ in onsets, as in (99) above. Censabella (2009: 138–139) also documents the palatalization of /χ/ (/x/ in her notation) in the varieties spoken in Colonia Muñiz (*tife'lis* ‘scissors’) and Bazán (*tife'lis* ‘scissors’, *i,tu'wefa* ‘s/he makes a hole’), as well as – less consistently and with a different outcome – in Teniente Fraga (*i,tu'weca* ‘s/he makes a hole’, but *tixe'lis* ‘scissors’) and Misión El Carmen (*i,tu'wex'a* ‘s/he makes a hole’, but *tixe'lis* ‘scissors’).

9.2.1.4 PW *x^w

Proto-Wichí *x^w typically yields [x^w] or [f^w] in the Wichí dialects (Najlis 1971: 128). Censabella (2009: 138) states that “although the use of both variants is observed in all varieties [i.e., Teniente Fraga, Misión El Carmen, Colonia Muñiz, Bazán, and El Sauzalito – A.N., J.C.] and in all age ranges, it is more common to hear the labiodental realization in the Eastern varieties than in the Western ones [translation ours – A.N., J.C.]”: compare Misión El Carmen [x^wala] and Colonia Muñiz [f^wala] ‘day’ (< PW **x^wála), El Sauzalito [tʃex^w] and Bazán [tʃef^w] ‘sweat’ (< PW *k'júx^w). Free variation between [x^w] and [f^w] is also documented in Misión Santa María (542). A third common reflex of PW *x^w is [h^w], as attested in the Misión Chaqueña subdialect of Vejoz (Viñas Urquiza 1974) and in the Misión La Paz subdialect of Vejoz (Avram 2008: 44). All three allophones have been attested in the subdialect(s) of Guisnay described in Fernández Garay & Spinelli (2009: 154), where the phoneme in question is realized as [x^w] ~ [f^w] word-initially (543a), as [x^w] ~ [f^w] ~ [h^w] intervocalically, as in (543b)–(543c),¹⁶ and as [x^w] word-finally (543d).

(542) Misión Santa María Wichí (Spinelli 2007)

- a. [f^wih'njoʈ] ~ [x^wih'njoʈ] ‘charcoal’ < PW *x^wijhó-l^h ‘charcoal.PL’
- b. [af^wen'tʃe] ~ [ax^wen'tʃe] ‘bird’ < PW *ʔax^wén-kⁱe

(543) Guisnay Wichí (Fernández Garay & Spinelli 2009: 154)

- a. [x^woʔjjax] ~ [f^woʔjjax] ‘Muscovy duck’ < PW *x^wóqʔjjaχ
- b. [ox^wi'lax] ~ [of^wi'lax] ‘I scratch myself’ < PW *ŋ-x^wilâχ
- c. [ox^we'wet] ~ [oh^we'wet] ‘my chair’ < PW *ŋⁱ-ho-wet ‘my seat’
- d. [tux^w] ‘s/he eats’ < PW *tux^w

¹⁶The etymon of (543c) did not in fact contain a *x^w in Proto-Wichí. Both the consonant and the vowel appear to have evolved irregularly.

Censabella's (2009) claim regarding the geographical distribution of the allophones [x^w] and [f^w] is confirmed by other sources on Wichí. In 'Weenhayek, Claesson (1994) documents only [x^w]. Fernández Garay (2006–2007) reports that [x^w] is predominant in the Paraje La Paz subdialect of Vejoz, where [f^w] has been attested in only one lexeme (and even then it is reported to be in free variation with [x^w]: [qaf^wa'jax] ~ [qax^wa'jax] 'magic'). Moving in the southeast direction, in Rivadavia only [x^w] (alongside its metathesized variant [x^w]) is attested (Terraza 2009b: 45–46). By contrast, in the southeastern extreme of the Wichí-speaking zone [f^w] is reported as the main allophone of the phoneme in question (Nercesian 2014: 51), where [x^w] is only occasionally found in free variation with [f^w] (*laf^wut* ~ *la[x^w]ut* 'her/his musical instrument').

In the varieties of Bazán (younger speakers) and Rivadavia, /x^w/ may surface as prelabialized rather than postlabialized in the coda position:

(544) Bazán Wichí

- a. /lax^wtʃa/ [laxə'tʃa] (older) ~ [lawx'tʃa] (younger) 'her/his father' (Censabella 2009: 140) < PW *t-x^wk'ah
- b. /tɛx^w/ [xlexɯ] (older) ~ [xlewɯ] (younger) 'its wing' (Censabella 2009: 140) < PW *t-ex^w
- c. /ax^wtsinaχ/ [awhtsi'nah] 'fork' (Braunstein 2009: 6)
- d. /x^wex^w/ [hwewh] 'finger' (Braunstein 2009: 6) < PW *-x^wux^w

Yet in other varieties, /x^w/ may optionally lose labialization in the coda position. The following examples are from Paraje La Paz, but the delabialization in the word for 'father' (545b) is also seen in other dialects, such as 'Weenhayek (Claesson 2016: 60).

(545) Paraje La Paz Wichí (Fernández Garay 2006–2007)

- a. /tɛx^w/ [tɛx^w] ~ [tɛx] 'its wing' < PW *t-ex^w
- b. /ox^wtʃa/ [ox'tʃa] ~ [ox'tɕa] 'my father' < PW *ŋ-x^wk'ah

In the Rivadavia subdialect of Southeastern Wichí, /x^w/ is delabialized to [x] before a high rounded vowel. For example, Rivadavia [nuxu] 'all' (Terraza 2009a: 63) clearly goes back to PW *nox^w-o, as suggested by its cognates in other dialects: LB *nuf^wu*, 'Wk *nox^wo* (Censabella 2009, Nercesian 2014, Claesson 2016).

9.2.1.5 PW *ʎ

PW *ʎ is articulated as [ʎ] in most Wichí varieties. Censabella (2009: 137–138) reports, however, that it is typically realized as [xl] in Lower Bermejeño Wichí as spoken in Colonia Muñiz (546).

(546) Colonia Muñiz Wichí (Censabella 2009: 137–8)

- a. [ŋ'xlam] 's/he' (probably mistranslated) < PW *ŋ-t-á'm 'I'
- b. [tʃ'ŋ'xlos] 'my son' < PW *ŋ-t-ás
- c. [xle'tek] 'her/his head' < PW *t-éteq
- d. [ŋtʃem'xli] 'I work' < PW *ŋ-t-k'úm-tih
- e. [a'xlu] 'iguana' < PW *ʎáʎu

Fernández Garay & Spinelli (2009: 162) document [x̠] as a free variant of [ʎ] in the speech of a consultant from San Luis, a community located not far from Santa Victoria Este, as in *ʎa'mis* ~ *x̠a'mis* 'necklace'. Avram (2008: 50–51) explicitly claims that in the Misión La Paz subdialect of the Guisnay dialect of Wichí the sound in question is articulated as a voiceless approximant [l̠] and not as a fricative [ʎ] (547). In Weenhayek, Claesson (1994: 31) describes the sound in question as [l̠] and analyzes it as an underlying cluster /lh/ (see §9.2.1.7 on other clusters of this type); in this book we represent it as ʎ.

(547) Misión La Paz Wichí (Avram 2008: 50–51)

- a. [ʎup] 'its nest' < PW *t-úp
- b. [oni'p̠] 'my stomach' < PW *ŋ-nipiʎ
- c. [q̠q̠q̠tax] 'turkey' < PW *qáʎq̠-tax

9.2.1.6 Glottalized consonants

In Proto-Wichí, the following glottalized consonants are reconstructed: *p', *t', *ts', *k', *q', *k^w (exceedingly rare), *w, *l, *j, *m, and *n.

We start by discussing the realization of the glottalized stops and affricates in the dialects of Wichí. These are described as ejective consonants by authors such as Censabella (2009: 128–131) and Nercesian (2014: 49–51, 79–82) for Lower Bermejeño Wichí, Viñas Urquiza (1974) for the Misión Chaqueña subdialect of Vejoz, or Avram (2008) for the Misión La Paz subdialect of Guisnay, and we reconstruct this state of affairs for Proto-Wichí. Some dialects, however, appear to have innovated in transforming ejectives into implosives, at least at some points of articulation.

This process is most advanced in the 'Weenhayek dialect, with its four implosive phonemes. Claesson (1994: 29) reports that the 'Weenhayek pronounce what he analyzes as /pʔ/, /tʔ/, /kʔ/, and /qʔ/ as glottalic ingressesives (implosives), whereas the sounds with fricative release, /kyʔ/ and /tsʔ/ [our *kʲ*' and *ts'* – A.N., J.C.], are glottalic egressives (ejectives)". In her study of the variety spoken in Paraje La Paz, Fernández Garay (2006–2007) documents the glottalized labial stop as varying between [β̥] and [β], the glottalized alveolar stop as varying between [ɖ̥] and [ɖ], and the glottalized velar stop as varying between [ǰ̥] and [ǰ] (548a)–(548j). The reflex of PW **kʲ*', on the other hand, is apparently articulated as the plain affricate [tʃ], as in [otʃo'te] 'my ear'. Deglottalization may affect other consonants as well (548k).

(548) Paraje La Paz Wichí (Fernández Garay 2006–2007)

- a. [ʔo] 'to roast, to burn' < PW **p'o*
- b. [si'β̥a] 'soldier' < PW **sip'a* 'hat; fish sp. (*Sorubim lima* (?))'
- c. [tso'β̥a] ~ [tso'βa] 'heel bone' < (?) PW **sóp'awax*
- d. [ɖ̥un] 'hard' < PW **t'un*
- e. [o'ɖ̥ek] 'I eat (intr.)' < PW **ɲ-t-'eq*
- f. [d̥i'kʷa] ~ [ɖ̥i'kʷa] 'swollen' < PW **t'ukʷa*
- g. [ɖu'ɬu] ~ [ɖ̥u'ɬu] 'her/his urine' < PW **t-'úɬu*
- h. [ǰ̥o'nek] 'sweet' < PW **haq'óneq*
- i. [xʷa'ǰ̥an] 'it is blue' < PW **ʔixʷáq'an*
- j. [ǰ̥u'se] ~ [ɖ̥u'se] 'jaw' < PW **-q'úse* 'beard, chin'
- k. [la'qɛ] ~ [la'qɛ̥] 'it shines' < PW **laq'e*

In some dialects, the implosive realization is restricted to the reflexes of **p'* and **t'*, but not to those of the glottalized consonants articulated further back. For example, Terraza (2009b: 34–35) explicitly claims that in the Rivadavia sub-dialect of Southeastern Wichí the labial and dental glottalized stops [β̥], [ɖ̥] are articulated as implosives rather than ejectives, whereas PW **ts'*, **kʲ*', and **q'* are deglottalized to *ts*, *kʲ*, *q* in that variety (549). Similarly, Censabella (2009: 128–131) documents implosive reflexes of **p'* and **t'* in the varieties of El Sauzalito (550) and Teniente Fraga (551); unlike in Rivadavia, these varieties do not show systematic deglottalization of the remaining glottalized stops (El Sauzalito *ts'*, *kʲ*', *k'*; Teniente Fraga *ts'*, *kʲ* ~ *tʃ* ~ *ʔtc*, *k'*). In their description of the variety spoken by a consultant from Ingeniero Juárez, Cayré Baito & Carpio (2009) systematically transcribe the reflex of PW **t'* as [ɖ] (no data on other points of articulation are available in the cited work).

9.2 From Proto-Wichí to the contemporary Wichí varieties

- (549) Rivadavia Wichí (Terraza 2009b)
- tatsi* ‘rufous hornero’ < PW **táts’i*
 - ha-k^jute* ‘your ear’ < PW **ha-k^j’óte*
 - la-qax* ‘her/his mouth’ < PW **ʔ-q’áχ*
- (550) El Sauzalito Wichí (Censabella 2009: 128–131)
- [muʔbi] ‘white heron’ < PW **móp’i*
 - [dʔisan] ‘its flesh, meat’ < PW **t-’isaʔn*
- (551) Teniente Fraga Wichí (Censabella 2009: 128–131)
- [muʔbi] ‘white heron’ < PW **móp’i*
 - [dʔisan] ‘its flesh, meat’ < PW **t-’isaʔn*

The variety spoken in Misión El Carmen is unusual in that it debuccalizes PW **t*’, **k*’, and **q*’ to [ʔ], [ʔʲ] ~ [ʲ], and [ʔ], respectively, as in (552a)–(552d). PW **ts*’ is preserved as an ejective affricate [tsʰ] in Misión El Carmen, whereas the reflex PW **p*’ is quite unexpectedly attested as [d] (*sic*) in the only available example (552e).

- (552) Misión El Carmen Wichí (Censabella 2009)
- [k^jeʔʲe] (older) ~ [tʰeʰeʔ] (younger) ‘parakeet sp.’ < PW **k^jék^je*
 - [ʔ^juʰte] ‘ear’ < PW **-k^j’óte*
 - [ləʔax] ‘her/his mouth’ < PW **ʔ-q’áχ*
 - [toʔax] ‘one’s mouth’ < PW **-q’áχ* ‘mouth’
 - [muʰdʔi] ‘white heron’ < PW **móp’i*

The debuccalization has also been attested in Fernández Garay (2006–2007) as an optional phenomenon in the variety of Paraje La Paz (553). Fernández Garay & Spinelli (2009: 167–168) report several examples of debuccalization in the variety of Lapacho Mocho, as in *oʔahʔitʔu* ‘my tongue’ < PW **ʔ-q’ax-ʔ-ʔk^j’u*.

- (553) Paraje La Paz Wichí (Fernández Garay 2006–2007)
- [ʔiʰk^wa] ~ [dʔiʰk^wa] ~ [dʔiʰk^wa] ‘swollen’ < PW **t’uk^wa*
 - [ʔuʰse] ~ [ʃuʰse] ~ [dʃuʰse] ‘jaw’ < PW **-q’úse* ‘beard, chin’

Finally, Censabella (2009: 125) also reports that in some cases glottalized stops may be optionally articulated as aspirated (554), though in (554c) the aspirated variant is in fact more conservative.

(554) *Wichí* (Censabella 2009: 125)

- a. Colonia Muñiz [la'p'i] ~ [la'p^hi] 'tayra' < PW *^ʔp'i
- b. El Sauzalito [t'i] ~ [t^hi] 'its liquid' < PW *^ʔt-i
- c. Misión El Carmen [k'a] ~ [k^ha] ~ [q^ha] 'no' < PW *qhá

The fate of the glottalized sonorants *^ʔw, *^ʔl, *^ʔj, *^ʔm, and *^ʔn in the dialects of *Wichí* is less clear. These consonants are preserved in 'Weenhayek as described by Claesson (1994, 2016), in the Misión Chaqueña subdialect of Vejoz as described by Gutiérrez & Osornio (2015), in Lower Bermejeño *Wichí* as described by Nercesian (2014), and in the Misión La Paz subdialect of Guisnay as described by Avram (2008). Other sources that deal with the same varieties, such as Viñas Urquiza (1974) and Braunstein (2009), may at times fail to document the glottalization contrast in sonorants, possibly due to mistranscription on part of non-*Wichí* researchers. The phonological descriptions of other *Wichí* dialects do not mention the existence of glottalized sonorants and usually transcribe the consonants in question as plain sonorants, as in (555)–(556). In Misión Santa María, Proto-*Wichí* glottalized sonorants are usually reflected as plain sonorants, as in (557a)–(557b), but occasionally clusters of the shape [ʔC] are attested (557c).

(555) *Paraje La Paz Wichí* (Fernández Garay 2006–2007)

- a. [wo'na] 'kind of bee (*bala*)' < PW *wó'nah
- b. ['wet] 'place' < PW *^ʔwet
- c. ['wen] 'to find' < PW *^ʔwén 'to see'
- d. [tʃa'la] 'lizard' < PW *k^ʔá'lah

(556) *Rivadavia Wichí* (Terraza 2009b: 68, 146, 157, 220)

- a. -nojix 'road' < PW *^ʔnájix
- b. halo 'tree' < PW *ha'lá
- c. wahat 'fish' < PW *^ʔwáhat
- d. ja-wen 'we see' < PW *^xjá-^ʔwen

(557) *Misión Santa María Wichí* (Spinelli 2007)

- a. [ha'laʔ] 'tree' < PW *ha'lá
- b. [wo'ji:s] 'blood' < PW *^ʔwoj-ís
- c. [hi'no] 'man' < PW *hi'no

In the word-final position, glottalized sonorants merge with their plain counterparts in most varieties of Wichí, or at least most sources do not transcribe the distinction in a consistent way. Claesson (2016) is the most reliable source in this regard. Note that the plain sonorants of Proto-Wichí are devoiced before a pause in 'Weenhayek, whereas the glottalized sonorants are realized as sequences of the type [Cʔ] in that position: PW **hósa'n* 'ax' > 'Wk *hósa'n* (phonetically [hõ:'sanʔ]), PW **k'uthá'n* 'thistle' > 'Wk *k'ut'há'n* [kʲ'u'tʰã:nʔ], but PW **ŋ-jáhin* 'I watch' > 'Wk *ʔō-jáhiŋ* [ʔõja:hĩŋ] (Claesson 2016). Sequences of the type [Cʔ] before in pause have also been attested in the Misión La Paz subdialect of Guisnay, as in [hõ:'sanʔ] 'ax' and [kʲ'u'tanʔ] 'thistle', but since they also show up in words that originally ended in a plain sonorant ([oja'hĩnʔ] 'I watch'), it is not clear to us that Guisnay retains the original opposition. Other dialects, such as Lower Bermejeño, have entirely lost the contrast in question in codas: LB *husan* 'ax', *tʃ'itʰan* 'thistle', *ŋ-jahin* 'I watch' (Nercesian 2014).

9.2.1.7 Consonants plus PW **h*

In Wichí, underlying sequences of plain supraglottal consonants (stops or nasals) and /h/ (in some analyses, /h̥/) in the onset position are typically articulated as single sounds (aspirated stops or devoiced nasals). Some authors, such as Nercesian (2014), map the resulting sounds to independent phonemes, whereas others, such as Claesson (1994), analyze them as underlying consonant clusters. The following vowel is phonetically nasalized at least in some dialects thanks to rhinoglottophilia (§9.2.2.6). No sequences involving a fricative followed by **h*/ existed in Proto-Wichí thanks to a diachronic sound change whereby **h*/ was deleted after fricatives (§9.1.1.16).

In 'Weenhayek, Claesson (1994: 29, 31) analyzes the sounds in question as underlying clusters with /h/ as a second element. Of these, /ph/, /th/, /tsh/, /kh/, /kʰ/, and /qh/ are phonetically realized as aspirated consonants. The clusters involving a sonorant and /h/ are realized with a devoiced nasal phase: /mh/ [m̥m], /nh/ [n̥n], /wh/ [w̥w], /jh/ [j̥j], /lh/ [l̥l]. In this book, these sounds are represented as *p^h*, *t^h*, *ts^h*, *k^h*, *kʰ*, *q^h*, *m̥*, *n̥*, *ɰ*, *ç*, and *ʈ*.

In Lower Bermejeño Wichí, Nercesian (2014: 49–53) ascribes phonemic status to the following consonants: /p^h/, /t^h/, /ts^h/, /q^h/, /ŋ/ (optionally articulated as breathy voiced [ŋ̥]), /j̥/, /w̥/. The sounds [m̥] (also pronounced as breathy voiced [m̥̥]) and [tʰ] are claimed by Nercesian (2014) to be allophonic realizations of /mh/ and /tʃh/, respectively, as in *nomen* 'they come' (underlying /nom+hən/) and *totʃ^hajax* 's/he worships a god' (no underlying representation given). In this book, /j̥/, /w̥/ are represented as *ç* and *ɰ*.

In the Rivadavia subdialect of Southeastern Wichí, Terraza (2009b: 27–30) identifies the aspirated stops /p^h/, /t^h/, /q^h/ as phonemes. PW **tsh* is reflected as *ts* in Rivadavia, as in *tsot-oj* ‘animals’, *watsan* ‘it is green’. The reflex of PW **k^h* in Rivadavia is unknown. As for sequences of a nasal and /h/, Terraza (2009b: 38–41) analyzes the instances of [ṃ] and [ṅ] as /mh/ and /nh/ (or /mḥ/ and /nḥ/ in Terraza 2009a) when there is morphological evidence that clearly shows that there is a morpheme ending in a nasal and another one starting with /h/ (/ḥ/). In her discussion of the tautomorphemic occurrences of [ṃ] and [ṅ], as in (558a)–(558d), Terraza (2009b: 41) states that the low number of examples makes it implausible to posit /m/ and /ṅ/ as phonemes and concludes that these segments are “residues of a phonological opposition that no longer exists”. The Rivadavia reflex of PW **jh* is articulated as a voiceless nasalized approximant [j̥] ~ [ḥj̥], considered by Terraza (2009b: 48) and Terraza (2009a: 79) to be a realization of /jh/, and is attested in roots such as (558e)–(558h), among others.¹⁷ Finally, the reflex of PW **wh* in Rivadavia is documented as [Ṃ] and analyzed as /hw/ or /wh/, as in (558i)–(558j).

(558) Rivadavia Wichí (Terraza 2009a,b: 38–41, 48)

- a. *'neme* ‘not anymore’ < PW **nem-hV*
- b. *ṇete* ‘injure’ < PW **-nhéte*
- c. *poṇon* ‘pepper’ < PW **pánhân*
- d. *atsiṇa* ‘woman’ < PW **ʔatsínha*
- e. *h^{wi}is̄ju* ‘ember’ < PW **x^{wi}ijho(?)*
- f. *ĩjox* ‘some’ < PW **ʔi-jhâχ*
- g. *ta-qataj-ēn* ‘they cook’ < PW **ta-qátaj-heⁿ*
- h. *ĩjot* ‘clay’ < PW **ʔijhât*
- i. *ta-ṡajej* ‘s/he gets married’ < PW **ta-whájej*
- j. *ta-ṡijej* ‘s/he talks’

In other dialects, the reflexes of the clusters of the shape **Ch* are not so thoroughly documented. For example, the variety of Paraje La Paz is reported to lack aspirated stops (Fernández Garay 2006–2007); concrete examples of deaspirated

¹⁷In the closely related variety of Southeastern Wichí spoken by Cayré Baito & Carpio’s (2009) consultant from Ingeniero Juárez, the reflex of PW **jh* is documented as a voiced nasalized approximant [j̥]: [lɔj̥ɛn] ‘they are alive’, [tɔkɛt̚j̥ɛn] ‘we cook’, [tɛtɔj̥ɛdɛ] ‘they do not lose’, [jɛj̥ɛdɛ] ‘they are not sharpened’, [tɛj̥ɛ] ‘forest’, [f^wɛj̥ɔ] ‘charcoal’, [nĩj̥ɔ] ‘ropes’, [nɔj̥ɔ] ‘footprints’ (Cayré Baito & Carpio 2009: 102–103).

9.2 From Proto-Wichí to the contemporary Wichí varieties

stops involve PW **tsh* > *ts*, as in (559a)–(559b), and PW **ph* > *ɸ* (559c). As for Proto-Wichí clusters of the shape “sonorant + **h*”, all available examples involve PW **nh* (variably reflected as *n* or *hn*) or PW **jh* (reflected as *hnj*), as in (559d)–(559k). In the variety of Misión Santa María, at least PW **tsh* and **qh* are deaspirated, as in (560a)–(560d); PW **nh* and PW **jh* are reflected as preaspirated nasals in that variety, as in (560e)–(560i). In the Misión La Paz subdialect of Guisnay, aspirated stops have not been attested in the onset position (Avram 2008), suggesting that Proto-Wichí clusters of the shape “stop + **h*” may have undergone deaspiration, as in (561a). At least the clusters **mh*, **nh*, **jh*, however, are retained as voiceless nasals *ɲ*, *ɳ*, *ɳʲ* in Misión La Paz, as in (561b)–(561i); Avram (2008: 98) also notes that voiceless nasals may be optionally realized as voiced. The reflex of PW **wh* in Misión La Paz is documented as *h^w*, as in (561j)–(561k). Note, however, that PW **wh* > *h^w* does not completely merge with PW **x^w* > *h^w*: the following vowel is nasalized in the former situation but not in the latter.

(559) Paraje La Paz Wichí (Fernández Garay 2006–2007)

- a. [wa'tsan] ‘it is green’ < PW **ʷátshan*
- b. [na'tsas] ‘children’ < PW **náʔtsha-s*
- c. [otaj'ɕa] ‘I sit’ < PW **ɲ-t-táj-phá*
- d. [na'tek] ‘tusca bush’ < PW **xnháte-q*
- e. [an'jax] ‘wild bean’ < PW **ʔánhjaχ*
- f. [tsoh'nat] ‘knife’ < PW **tsonhat*
- g. [hoh'nat] ‘earth’ < PW **honhat*
- h. [ahnal'a'tax] ‘capybara’ < PW **ʔánhâlâ-taχ*
- i. [oh'nus] ‘my nose’ < PW **ɲ-nhus*
- j. [useh'na] ‘anco squash’ < PW **ʔúsenha*
- k. [ih'njat] ‘clay’ < PW **ʔijhât*

(560) Misión Santa María Wichí (Spinelli 2007)

- a. [ɬu'tsa] ‘girl’ < PW **ɬútsha*
- b. [wa'tsan] ‘it is green’ < PW **ʷátshan*
- c. [tsa'wet] ‘animal’ < PW **xsháwet*
- d. [sila'ka] ‘wild cat’ < PW **siláqhâj*
- e. [hoh'nat] ‘earth’ < PW **honhat*
- f. [tsoh'nat] ~ [tsox'nat] ~ [tsoh̃'nat] ‘knife’ < PW **tsonhat*

- g. [oh'nūs] ~ [õh'nus] 'my nose' < PW **ŋ-nhus*
- h. [tañ'nī] 'mountain' < PW **tájhi* 'forest'
- i. [f^wih'njoʎ] ~ [x^wih'njoʎ] 'embers' < PW **x^wijhó-l^h* 'charcoal.PL'

(561) Misión La Paz Wichí (Avram 2008)

- a. [ʔna'tses] 'boys' < PW **náʔtsha-s*
- b. [lawo'mäj] 'gorges' < PW **ʎ-wómh-aj^h*
- c. [k^ju'mas] 'workers' < PW **k^jum-há-s*
- d. [pã'ŋan] 'red pepper' < PW **pánhã*
- e. [tso'ŋat] 'knife' < PW **tsonhat*
- f. [hõ'ŋat] 'earth' < PW **honhat*
- g. [o'ŋaq] 'sachasandía (*Capparis salicifolia*)' < PW **ʔónha-q* ~ **ʔónha-k^w*
- h. [h^wi'ŋ^jol] 'charcoal' < PW **x^wijhó-l^h* 'charcoal.PL'
- i. [ta'ŋ^ji] 'forest' < PW **tájhi*
- j. [to'h^wäj] 'pots' < PW **towhá-j^h*
- k. [k^jo'h^wäj] 'holes' < PW **k^jowhá-j^h*

Proto-Wichí also allowed clusters of the shape */Ch/ in the word-final position, the options being PW **j^h* (underlying */jh/) and **l^h* (underlying /lh/). PW **j^h* is consistently reflected as voiceless ç in 'Weenhayek, where it contrasts with PW **j* > 'Wk *jʔ* (562). In all other varieties of Wichí, PW **j^h* and **j* merge as *j*.

(562) 'Weenhayek (Claesson 2016)

- a. *ʔi-náč* 's/he bathes' < PW **ʔi-náj^h*
- b. *ta-pájʔ* 'it is bitter' < PW **ta-páj*

As for PW **l^h*, both *l* and *ʎ* are found throughout the Wichí-speaking zone. These reflexes are distributed as follows. In 'Weenhayek and in the variety of Misión Santa María, only *ʎ* is found, as shown in (563)–(564). In the varieties of Paraje La Paz (Vejoz) and Misión La Paz (Guisnay), by contrast, only the voiced reflex is attested, as in (565)–(566). Some dialects show both *l* and *ʎ* as possible reflexes. A case in point is the Lower Bermejeño dialect, where Nercesian (2014: 52) states that *ʎ* varies with *l*, especially in fast speech (567). This seems to also be the case in the closely-related Rivadavia subdialect of Southeastern Wichí as documented by Terraza (2009b): compare the voiced reflex in (568a) and the voiceless

9.2 From Proto-Wichí to the contemporary Wichí varieties

reflex in (568b)–(568d). Variation is also attested in the Misión Chaqueña subdialect of Vejoz, where Viñas Urquiza (1974) mostly documents the voiced reflex *l*, as in (569a)–(569i); the voiceless reflex is documented in (569j). In Gutiérrez & Osornio’s (2015) dictionary of the same variety, the voiced reflex is found in (570a)–(570d), whereas the voiceless reflex is documented in (570e)–(570h).

(563) ’Weenhayek (Claesson 2016)

- a. *qatéts-elʰ* ‘stars’ < PW **qatéts-elʰ*
- b. *x^wiçó-t* ‘embers’ < PW **x^wijhó-lʰ* ‘charcoal.PL’
- c. *?ō-ʔj-it* ‘I die’ < PW **ŋ-ʔj-ilʰ*
- d. *∅-ʔám-elʰ* (rare) ‘you guys’ < PW **∅-ʔám-elʰ*

(564) Misión Santa María Wichí (Spinelli 2007)

- a. [kateʰtseʃ] ‘stars’ < PW **qatéts-elʰ*
- b. [f^wihⁿjoʃ] ~ [x^wihⁿjoʃ] ‘embers’ < PW **x^wijhó-lʰ* ‘charcoal.PL’
- c. [oʃiʃ] ‘I die’ < PW **ŋ-ʔj-ilʰ*
- d. [a^wmeʃ] ‘you guys’ < PW **∅-ʔám-elʰ*

(565) Paraje La Paz Wichí (Fernández Garay 2006–2007)

- a. [kateʰtsel] ‘stars’ < PW **qatéts-elʰ*
- b. [hu^wpel] ‘shadow’ < PW **hpélʰ*
- c. [a^wmel] ‘you guys’ < PW **∅-ʔám-elʰ*
- d. [ʃa^wmel] ‘they’ < PW **t-ám-elʰ*
- e. [ʃil] ‘dead’ < PW **ʔj-ilʰ*

(566) Misión La Paz Wichí (Avram 2008)

- a. [qateʰtsel] ‘stars’ < PW **qatéts-elʰ*
- b. [hãʔlateʰtsel] ‘tree trunks’ < PW **haʔlá téts-elʰ*
- c. [h^wi^wol] ‘charcoal’ < PW **x^wijhó-lʰ* ‘charcoal.PL’
- d. [ʔnoʃa^wmel] ‘we (exclusive)’ < PW **ʔnó-t-ám-elʰ* ‘one (indefinite pronoun)’

(567) Lower Bermejeño Wichí (Nercesian 2014: 52)

- a. [h^wi^wnũʃ] ~ [h^wi^wnũl] ‘men’ < PW **hi^wnó-lʰ*
- b. [ʔa^wmĩʃ] ~ [ʔa^wmĩl] ‘you guys’ < PW **∅-ʔám-elʰ*

- (568) Rivadavia Wichí (Terraza 2009b)
- a. *hepel* / *-qa-mpel* ‘shadow’ < PW **hpél^h* / **-qá-hpel^h*
 - b. *jit* ‘s/he dies’ < PW **ʔj-il^h*
 - c. *hinu-t* ‘men’ < PW **hiʔnó-l^h*
 - d. *-x^wut* ‘flute’ < PW **-x^wól^h*
- (569) Misión Chaqueña Wichí (Viñas Urquiza 1974)
- a. *hupel* ‘shadow’ < PW **hpél^h*
 - b. *-h^wol* ‘flute’ < PW **-x^wól^h*
 - c. *-pil* ‘to return hither’ < PW **-píl^h*
 - d. *j-apil* ‘to return thither’ < PW **j-ápil^h*
 - e. *jijl* ‘s/he dies’ < PW **ʔj-il^h*
 - f. *o-t-am-el* ‘we (exclusive)’ < PW **ŋ-t-ám-el^h*
 - g. *n-am-el* ‘we (inclusive)’ < PW ***n-ám-el^h*
 - h. *∅-am-el* ‘you guys’ < PW **∅-lám-el^h*
 - i. *t-am-el* ‘they’ < PW **t-ám-el^h*
 - j. *tfoł* ‘locust’ < PW **kʲól^h*
- (570) Misión Chaqueña Wichí (Gutiérrez & Osornio 2015)
- a. *o-t-am-el* ‘we (exclusive)’ < PW **ŋ-t-ám-el^h*
 - b. *ʔn-am-el* ‘we (inclusive)’ < PW ***n-ám-el^h*
 - c. *∅-am-el* ‘you guys’ < PW **∅-lám-el^h*
 - d. *t-am-el* ‘they’ < PW **t-ám-el^h*
 - e. *hupet* ‘shadow’ < PW **hpél^h*
 - f. *-pit* ‘to return hither’ < PW **-píl^h*
 - g. *tfoł* ‘locust’ < PW **kʲól^h*
 - h. *katets-et* ‘stars’ < PW **qatéts-el^h*

9.2.1.8 Word-initial consonant clusters

The word-initial clusters **kʲt*, **tkʲ*, and **qs* have changed in all Wichí dialects: in Southeastern Wichí they are resolved by the epenthesis of *i*, *a*, and *a*, respectively, whereas in all other varieties the first element of these clusters is simply deleted. Four examples are currently known: PW **kʲtáʔnih* ‘Chaco tortoise’, **kʲtéta* ‘white algarrobo fruit (*Prosopis elata*)’, **ikʲénaχ* ‘mountain’, and

9.2 From Proto-Wichí to the contemporary Wichí varieties

**qséttax* ‘chequered woodpecker’. Their reflexes are affected by vowel epenthesis in Lower Bermejeño (571). Epenthetic vowels in these words are likewise attested in Rivadavia *takʲenax* ‘mountain’ (Terraza 2009b: 25) and in the form *tʲiteta* ‘white algarrobo fruit’, documented in an unspecified location in Salta by Suárez (2014). In ’Weenhayek, Vejoz, and Guisnay the clusters in question are rather eliminated by means of consonant deletion. The examples in (572) are from ’Weenhayek, and those in (573) are from the Misión Chaqueña subdialect of Vejoz. Forms from other, understudied varieties that show the same kind of sound change include Misión La Paz [*kʲeʲnax*], Misión Santa María [*tʲeʲnax*] ~ [*tʲeʲnax*] ‘mountain’ (Spinelli 2007, Avram 2008: 67).

(571) Lower Bermejeño Wichí (Nercesian 2014, Braunstein 2009)

- a. *tʲitaʲni* ‘Chaco tortoise’ < PW **kʲtáʲnih*
- b. *tatʲenax* ‘mountain’ < PW **tkʲénaχ*
- c. *qaseʲttax* ‘chequered woodpecker’ < PW **qséttax*

(572) ’Weenhayek (Claesson 2016)

- a. *táʲnih* ‘Chaco tortoise’ < PW **kʲtáʲnih*
- b. *tétaʲ?* ‘white algarrobo fruit’ < PW **kʲtéta*
- c. *kʲénaχ* ‘mountain’ < PW **tkʲénaχ*
- d. *séttax* ‘kind of small woodpecker with a white crest’ < PW **qséttax*

(573) Misión Chaqueña Wichí (Viñas Urquiza 1974, Gutiérrez & Osornio 2015)

- a. *taʲni* ‘Chaco tortoise’ < PW **kʲtáʲnih*
- b. *tʲenah* ‘mountain’ < PW **tkʲénaχ*

There are also a few roots where it is possible to reconstruct word-initial clusters of the shape **FW*, where *F* stands for a fricative and *W* for a labial consonant. These are resolved by an epenthetic vowel, whose quality depends on the dialect. In Lower Bermejeño (but not in the closely related Rivadavia subdialect), the epenthetic vowel is *i* in such cases. In the Misión Chaqueña subdialect of Vejoz, the epenthetic vowel is *i* ~ *u* after *s* but *u* after *h*. In ’Weenhayek and in the Misión La Paz subdialect of Guisnay, the epenthetic vowel is *u* even after *s*. In the Paraje La Paz subdialect of Vejoz, the epenthetic vowel is *u* at least after *h* (no examples involving *s* are documented in that variety in our sources). Finally, Rivadavia shows *u* (< **o*) after *s* and *e* (< **u*) after *h*. The known examples are listed in Table 9.5.

Table 9.5: Vowel epenthesis between a fricative and a labial

| | ‘ant’ | ‘dove’ | ‘shadow’ | source |
|-----------------|------------------|--------|--------------------|--|
| Proto-Wichí | *swánaχ | *spúp | *hpél ^h | |
| ’Weenhayek | suwáŋ-is | supúp | hupéł | Claesson (2016) |
| Misión La Paz | suwaŋa-s | — | — | Avram (2008) |
| Misión Chaqueña | suwanah | — | hupel | Viñas Urquiza (1974) |
| Misión Chaqueña | siwaŋa-s | sipup | hupéł | Gutiérrez & Osornio (2015) |
| Paraje La Paz | — | — | hupel | Fernández Garay (2006–2007) |
| Rivadavia | suwana, suwaŋa-s | — | hepel | Terraza (2009b) |
| Lower Bermejeño | siwaŋa-s | sipep | hipéł | Nercesian (2014), Spagarino et al. (2013 [2011]) |

9.2.1.9 Obstruent loss before glottalized sonorants

Some dialects, notably Southeastern Wichí, have done away with the Proto-Wichí clusters such as *pʷl, *qʷl, *qʷj by deleting their first element, as in the examples from Lower Bermejeño in (574).

(574) Lower Bermejeño Wichí (Nercesian 2014, Braunstein 2009)

- a. -juʷle ‘to hiccup’ < PW *ʷ[j]ópʷle
- b. -waʷla ‘nephew’ < PW *-wáqʷlah
- c. -waʷlani ‘niece’ < PW *-wáqʷlanih
- d. [t]oʷlej-APPL ‘to fight’ < PW *[t]áqʷlej
- e. fʷuʷjaχ ‘Muscovy duck’ < PW *xʷóqʷjaχ

The same phenomenon is attested in some other varieties, as in Misión Santa María [owaʷlaʷ] ‘my nephew’ (Spinelli 2007), Lapacho Mocho [taʷleʷhnjen] alongside [takleʷhnjen] ‘they fight’, [xʷoʷʔjah] alongside [xʷokʷjah] ‘duck’ (Fernández

Garay & Spinelli 2009: 163–164, 167). In the Rivadavia subdialect of Southeastern Wichí, the reflex of PW **ŋ-jópʰle* ‘I hiccup’ has been unexpectedly attested as *ŋ-jutle* (Censabella 2009: 134). By contrast, varieties such as ’Weenhayek and Vejoz preserve the clusters in question, though Vejoz may lose the glottalization in the sonorant (575).

(575) Vejoz (Hunt 1913a, Viñas Urquiza 1974, Gutiérrez & Osornio 2015)

- a. [*j*]ople ‘to hiccup’ < PW *ʔ[*j*]ópʰle
- b. -wakla ‘nephew’ < PW *-wáqʰlah
- c. -waklani ‘niece’ < PW *-wáqʰlanih
- d. h^wok(j)e-tah ‘duck’ < PW *x^wóqʰja-taχ

Before non-glottalized sonorants, the change does not usually take place; for example, PW **-t-’ótle* ‘heart’ and **wáplu* ‘she is pregnant’ consistently preserve the clusters *tl* and *pl* in the daughter lects, as in LB *-t-’utle*, *waple* (Nercesian 2014: 97). The cluster **tn* is typically preserved as *tn*, but it may also evolve to *kn*, as in Paraje La Paz [tok’nah] ‘toad’ < PW **tátnaχ*.

9.2.1.10 Insertion and deletion of ʔ before a pause

In Proto-Wichí, *ʔ was contrastive in the word-final position, as evidenced by pairs such as **ʔ-óʔ* ‘its seed’ vs. **ʔ-ó* ‘his penis’. This is preserved at least in the Lower Bermejeño variety of Wichí as documented by Nercesian (2014), as in LB *-ʔ-uʔ* ‘seed’ vs. *-ʔ-u* ‘penis’ (Nercesian 2014: 212–213).¹⁸

Other Wichí dialects are less conservative in this regard. For example, ’Weenhayek no longer allows vowels before a pause (Claesson 1994: 25–26): an epenthetic ʔ is systematically inserted after erstwhile utterance-final vowels (or after **j*), and ’Wk *ʔ-óʔ* ‘its seed’ is now homophonous with *ʔ-ó* ‘his penis’ (Claesson 2016: 75). In the Rivadavia subdialect of Southeastern Wichí, ʔ is automatically inserted after utterance-final stressed vowels, even in borrowings, such as *k’esuʔ* [k’e’suʔ] ‘cheese’ (from Spanish *queso*), *klistinaʔ* [klisti’naʔ] ‘Cristina’; unlike in ’Weenhayek, words with non-final stress, such as *i’x^wala* ‘morning’, do not show the ʔ-epenthesis (Terraza 2009a: 48–51). In the varieties of Misión Santa María and Misión La Paz, the epenthesis of ʔ is found in some words – (576a)–(576b), (577a)–(577c) – but not in others – (576c)–(576d), (577d)–(577f).

¹⁸The distinction is not consistently represented in Braunstein’s (2009) vocabulary of the Bazanero subdialect of Southeastern Wichí.

(576) Misión Santa María Wichí (Spinelli 2007)

- a. [i'maʔ] 's/he sleeps' < PW *ʔi-má
- b. [we'jaʔ] 's/he flies' < PW *x^we'já^ʔ ~ *we'já^ʔ ~ *x^{wi}'já^ʔ ~ *wi'já^ʔ
- c. [a'ma] 'rat' < PW *ʔáma
- d. [ʔu'tsa] 'young woman' < PW *ʔútsha

(577) Misión La Paz Wichí (Avram 2008)

- a. [oh^wa'poʔ] 'my shoulder' < PW *ń-x^wapo
- b. [a'luʔ] 'iguana' < PW *ʔátu
- c. [a:maʔ] 'rat' < PW *ʔáma
- d. [tun'te] 'stone' < PW *túnte
- e. [pi'nu] 'sugarcane' < PW *pínu
- f. [k^j'ek^j'e] 'monk parakeet' < PW *k'ék'^je

The ʔ-epenthesis is only rarely found in the variety of Paraje La Paz ([a'maʔ] 'rat', [ha'laʔ] 'tree' are the only examples documented in Fernández Garay 2006–2007). More research is needed on the varieties such as those of Misión Santa María, Misión La Paz, and Paraje La Paz in order to verify the status of the word-final instances of [ʔ], with a special focus on pairs such as *t-óʔ 'its seed' vs. *t-ó 'his penis'. Note that in all these dialects the ʔ-epenthesis typically fails to occur in words that have diachronically lost PW *h in the word-final position (§9.2.1.3), as in Misión Santa María [o'ko] 'my mother', [o'ʔo] 'hen' (< PW *ń-qoh, *hóʔoh), Misión La Paz [otk^jum^ʔi] (< PW *ń-t-k^júm-tih).

In the Misión Chaqueña subdialect of Vejoz, by contrast, *ʔ appears to have been eliminated in the word-final position even in words that originally ended in a glottal stop, as in *ʔa* < PW *ʔaʔ 'louse' (Viñas Urquiza 1974: 64). As a result, Viñas Urquiza (1974) and Gutiérrez & Osornio (2015) do not document ʔ in the word-final position in Vejoz at all.

9.2.1.11 PW *x-

In a limited number of words, 'Weenhayek ʔi- corresponds to zero in other Wichí varieties. While it is tempting to provide a morphological interpretation for this correspondence (e.g. by positing a fossilized semantically empty prefix ʔi- in Weenhayek), external comparanda in other Mataguyan languages suggest instead that one must seek a phonological explanation for it. In all likelihood, the correspondence between 'Wk ʔi- and zero in other Wichí dialects results from attrition

9.2 From Proto-Wichí to the contemporary Wichí varieties

of phonological material at the left margin of the word: compare Nivaçle *xifeʔk̄la* ‘moon’, *jiʔjekle* ‘tapir’, *ʃnãβãp* ‘spring’ and ʾWk *ʔiwéʔlah*, *ʔijéʔlah*, *ʔinãwop* ~ LB *wela*, *jela*, *nawup*. It is unclear at present how the segment in question was articulated in Proto-Wichí (some possibilities that we have considered include *ʔ-, *ʔ²-, ultrashort *ʔi-); we symbolize it with an ad hoc character *x- for the time being. It has been reconstructed, among other, in the following roots: *xwéʔlah ‘moon’, *xjéʔlah ‘tapir’, *xnãwop ‘spring’, *xmãwoh ‘fox’, *xnáte ‘rabbit’, *xʔwála ‘sun, day’, *xmájeq ‘thing, ghost’, *xsp(ʔ)ólop ‘thrush’, *xníkʲu ‘black-legged seriema (*Chunga burmeisteri*)’, *xñátax ‘tusca fruit’ (whence *xñát-eq ‘tusca bush’).

The Lower Bermejeño subdialect of Southeastern Wichí always loses *x- (578). This is corroborated by Censabella (2009: 138), who documents forms such as Misión El Carmen [xʔwála], Colonia Muñiz [ʔwála] ‘day’. Total loss of *x- is also found in the variety of Misión Santa María (579).

(578) Lower Bermejeño Wichí (Nercesian 2014, Spagarino et al. 2013 [2011])

- a. *wéʔla* ‘moon’ < PW *xwéʔlah
- b. *jeʔla* ‘tapir’ < PW *xjéʔlah
- c. *nawup* ‘spring’ < PW *xnãwop
- d. *mawu* ‘fox’ < PW *xmãwoh
- e. *note* ‘rabbit’ < PW *xnáte
- f. *ʔwála* ‘sun, day’ < PW *xʔwála
- g. *ma(je)q* ‘thing’ < PW *xmájeq
- h. *sipulup* ‘thrush’ < PW *xsp(ʔ)ólop
- i. *netʔe* ‘black-legged seriema’ < PW *xníkʲu
- j. *ñatax* ‘tusca fruit’ < PW *xñátax

(579) Misión Santa María Wichí (Spinelli 2007)

- a. [naʔwop] ‘spring’ < PW *xnãwop
- b. [maʔwo] ‘fox’ < PW *xmãwoh
- c. [maʔjek] ‘ghost’ < PW *xmájeq ‘thing’

In the Rivadavia subdialect of Southeastern Wichí, *x- is usually lost, as in (580a)–(580d); in three cases, however, the vowel *i* is found as its reflex instead, as in (580e)–(580g). A similar tendency is found in the Paraje La Paz subdialect of Vejoz: compare (581a)–(581c) with (581d); note that the latter root shows up without an *i* in the derivative in (581e).

- (580) Rivadavia Wichí (Terraza 2009b)
- a. *jela* ‘tapir’ < PW $^{*x}jéʔlah$
 - b. *nawup* ‘spring’ < PW $^{*x}návop$
 - c. *note* ‘rabbit’ < PW $^{*x}náte$
 - d. *maq* ‘thing’ < PW $^{*x}májeq$
 - e. *imawu* ‘fox’ < PW $^{*x}mávoh$
 - f. *iʰwála* ~ *ʰwála* ‘sun, day’ < PW $^{*xʰ}wála$
 - g. *inekʰe* ‘black-legged seriema’ < PW $^{*x}níkʰu$
- (581) Paraje La Paz Wichí (Fernández Garay 2006–2007)
- a. [mak] ‘something’ < PW $^{*x}májeq$ ‘thing’
 - b. [siɸoʔlop] ‘thrush’ < PW $^{*x}sp(ʔ)ólop$
 - c. [naʔtek] ‘tusca bush’ < PW $^{*x}nháte-q$
 - d. [ɪjeʔla] ‘tapir’ < PW $^{*x}jéʔlah$
 - e. [jelaʔtax] ‘horse’ < PW $^{*x}jéʔla-tax$

In the Misión Chaqueña subdialect of Vejoz, *i* and \emptyset are almost equally frequent as reflexes of PW *x . The available examples in Viñas Urquiza’s (1974) work are given in (582); the noun in (582e) unexpectedly shows *hn* instead of *n . Gutiérrez & Osornio’s (2015) vocabulary of the same variety has *i* in a different set of words (583); in (583f) and (583g), $^{*x}m$ reflected as $ʔm$.

- (582) Misión Chaqueña Wichí (Viñas Urquiza 1974)
- a. *iwela* ‘moon’ < PW $^{*x}wéʔlah$
 - b. *ijela* ‘tapir’ < PW $^{*x}jéʔlah$
 - c. *nawop* ‘spring’ < PW $^{*x}návop$
 - d. *maʔwo* ‘fox’ < PW $^{*x}mávoh$
 - e. *hnáte* ~ *hnote* ‘rabbit’ < PW $^{*x}náte$
 - f. *ihʰwála* ~ *hʰwála* ‘sun, day’ < PW $^{*xʰ}wála$
 - g. *mak* ~ *majek* ‘thing, something’ < PW $^{*x}májeq$
 - h. *sipʔolop* ‘thrush’ < PW $^{*x}sp(ʔ)ólop$
 - i. *natek* ‘tusca bush’ < PW $^{*x}nát-eq$

(583) Misión Chaqueña Wichí (Gutiérrez & Osornio 2015)

- a. *wela* ~ *iwela* ‘moon’ < PW **xwéʔlah*
- b. *inawop* ‘spring’ < PW **xnáwop*
- c. *nâte* ~ *inâte* ‘rabbit’ < PW **xnâte*
- d. *h^wala* ~ *ih^wala* ‘sun, day’ < PW **x^wála*
- e. *ɲatek* ‘tusca bush’ < PW **ɲát-eq*
- f. *ʔmawo* ‘fox’ < PW **xmáwoh*
- g. *ʔmak* ‘thing, something’ < PW **xmájeq*

Finally, as noted above, ʔWeenhayek consistently shows the reflex *ʔi* (584).

(584) ʔWeenhayek (Claesson 2016)

- a. *ʔiwéʔlah* ‘moon’ < PW **xwéʔlah*
- b. *ʔijéʔlah* ‘tapir’ < PW **xjéʔlah*
- c. *ʔináwop* ‘spring’ < PW **xnáwop*
- d. *ʔimáwoh* ‘fox’ < PW **xmáwoh*
- e. *ʔinâteʔ* ‘rabbit’ < PW **xnâte*
- f. *ʔix^wálaʔ* ‘sun, day’ < PW **x^wála*
- g. *ʔimák* ‘thing’, *ʔimájek* ‘thing, ghost’ < PW **xmájeq*
- h. *ʔispólop* ‘thrush’ < PW **xsp(ʔ)ólop*
- i. *neʔfe* ‘black-legged seriema’ < PW **xníkʔiʔu*
- j. *ʔiɲátax* ‘tusca fruit’ < PW **xɲátax*
- k. *ʔiɲát-ek* ‘tusca bush’ < PW **xɲát-eq*

9.2.1.12 PW **ɲ-*

Syllabic **ɲ-* is reconstructed in the first-person singular prefix (PW **ɲ-* in verbs, **ɲ-* in nouns). It is preserved as a syllabic nasal in some subdialects of South-eastern Wichí, including Lower Bermejeño (Nercesian 2014: 52, 98, 163, 223) and Rivadavia (Terraza 2009b: 41–42). In fact, it is reported to preserve its syllabicity preceding vowels in the latter variety: *ɲ.i.hi* ‘I am’, *ɲ.i.qa.na* ‘I am here’. Censabella (2009: 132, 134, 137–138) documents this realization in Colonia Muñiz, Bazán, and El Sauzalito (all these communities are located within the Lower Bermejeño zone); in Misión El Carmen, *ɲ-* has been attested alongside *ni-*: compare (585a)–(585d) and (585e).

(585) Misión El Carmen Wichí (Censabella 2009: 131–132, 138)

- a. [n'skat] 'I steal' < PW **n-sqat*
- b. [ɲkɔ^hɲi] 'my pocket' < PW **ɲ-qhã-j-hih*
- c. [n'łos] 'my son' < PW **n-t-ás*
- d. [ɲtʃem'hi] 'I work' < PW **n-t-k'úm-tih*
- e. [ni'k'im] 'I am thirsty' < PW **n-k'ím*

In some dialects, PW **n-*, **ɲ-* has become a nasal rounded vowel. Note that Wichí does not otherwise have phonemic nasal vowels (though vowels can be allophonically nasalized following a nasal consonant or /h/), meaning that the innovative reflex of Proto-Wichí syllabic **ɲ* becomes the first (and only) nasal vowel in the inventory of the dialects in question. In 'Weenhayek, the resulting prefix is *ʔō-* in verbs, *ʔó-* in nouns (but *ʔō-* in those affected by Watkins' Law), as in (586). In the subdialect of Southeastern Wichí spoken by Cayré Baito & Carpio's (2009) consultant from Ingeniero Juárez, the prefix in question shows up as *ũ-* (587).

(586) 'Weenhayek (Claesson 1994: 13)

- a. *ʔō-t-á'm* 'I' < PW **n-t-á'm*
- b. *ʔō-tux^w* 'I eat' < PW **n-tux^w*
- c. *ʔó-qoh* 'my mother' < PW **ɲ-qoh*
- d. *ʔó-puhx^wah* 'my brother' < PW **ɲ-puhx^wah*

(587) Ingeniero Juárez Wichí (Cayré Baito & Carpio 2009: 98, 100–101)

- a. [ũ'iĩĩ] 'I am' < PW **n-'i-hi*
- b. [ũ'jɛɲ] 'I fish' < PW **n-j-én* 'I put a snare'
- c. [ũ'dɛk^wɛ] 'I search' < PW **n-t-'ú-k^we*
- d. [ũsɛ'lit] 'I feel sleepy' < PW **n-t-'isélit* 'I marvel, I shudder, I wake up'

In quite a number of (sub)dialects, the first-person prefix is attested as *o-*, with no traces of nasality. This is the case in the variety of Misión Santa María (588). The same kind of reflex is documented in Vejoz, including the subdialects of Misión Chaqueña (Gutiérrez & Osornio 2015, Viñas Urquiza 1974: 131) and of Paraje La Paz (589). Some examples from the Misión La Paz subdialect of Guisnay are given in (590). Numerous examples of the prefix *o-* are documented in Fernández Garay & Spinelli (2009: 163–164, 167–168) in the varieties of Lapacho Mocho,

9.2 From Proto-Wichí to the contemporary Wichí varieties

Misión San Luis, and El Cañaverl. Similarly, Spinelli (2015) documents only *o*- as the first-person prefix in an article on causatives and applicatives, where all examples come from the varieties of Santa Victoria Este, Misión San Luis, El Cañaverl, and Misión Santa María.

(588) Misión Santa María Wichí (Spinelli 2007)

- a. [omaka'tsi] 'I lay down' < PW **ŋ-má-qatsih*
- b. [otupe'na] 'I bend down' < PW **ŋ-t'úp...-APPL*
- c. [o'tsu] 'I win' < PW **ŋ-ts'u(?)* 'I suck'
- d. [otfun'ti] 'I work' < PW **ŋ-t-k'úm-tih*
- e. [o'koj] 'I dance' < PW **ŋ-qój* 'I play, I dance'
- f. [otj'ote] 'I help' < PW **ŋ-t-k'ót-eh*
- g. [osun'ti] 'I whistle' < PW **ŋ-sun-tih* ~ **ŋ-sún-tih*
- h. [o'tuh] 'I eat' < PW **ŋ-tux^w*
- i. [o'jił] 'I die' < PW **ŋ-ʔ-j-il^h*
- j. [o'lam] 'I' < PW **ŋ-t-á'm*
- k. [oni'pił] 'my stomach' < PW **ŋ-nipił*
- l. [otso'te] 'my tooth' < PW **ŋ-tsote*
- m. [otjo'te] 'my ear' < PW **ŋ-k'ote*
- n. [o'tsak] 'my navel' < PW **ŋ-ts'aq*
- o. [oku'se] 'my chin' < PW **ŋ-q'use*
- p. [otfa'ji] 'my waist' < PW **ŋ-k'áji*
- q. [ok^we'tj'o] 'my palm of hand' < PW **ŋ-k^we-k'j'o*
- r. [o'ko] 'my mother' < PW **ŋ-qoh*

(589) Paraje La Paz Wichí (Fernández Garay 2006–2007)

- a. [oji'sit] 'I cut' < PW **ŋ-j-íset* [?] **ŋ-j-ísit*
- b. [opot'pe] 'I bury' < PW **ŋ-pót-pe*
- c. [o'ǰek] 'I eat' < PW **ŋ-t'eq*
- d. [o'koj] 'I play' < PW **ŋ-qój*
- e. [oka'sit] 'I stand' < PW **ŋ-t-qásit*
- f. [o'sek] 'I sweep' < PW **ŋ-sék*
- g. [o'qoj] 'I put clothes on' < PW **ŋ-qhã-j^h* 'my clothes'
- h. [ote'nek] 'I sing' < PW **ŋ-ten-eq* 'my song'

- i. [o'tsut] 'my walking stick' < PW **ń-*
- j. [otso'te] 'my tooth' < PW **ń-tsut*
- k. [otʃo'te] 'my ear' < PW **ń-k'ote*
- l. [o'k^wej] 'my hand' < PW **ń-k^wej*
- m. [o'les] 'my children' < PW **ń-les*

(590) Misión La Paz Wichí (Avram 2008)

- a. [otk^hu'h^{wi}?] 'I am dizzy' < PW **ń-t-k^húx^{wi}*
- b. [otk^hum'hi] 'I work' < PW **ń-t-k^húm-tih*
- c. [o'k^him] 'I am thirsty' < PW **ń-k^him*
- d. [o'ten] 'I copy' < PW **ń-tén*
- e. [otk^hoi'hi] 'I sing' < PW **ń-t-'ik^hój-tih*
- f. [otk^hui'hi] 'I vomit' < PW **ń-t-k^h'új-tih*
- g. [o'hüt] 'I push' < PW **ń-hút*
- h. [o'h^wut] 'I sharpen' < PW **ń-x^wút*
- i. [oja'hĩn?] 'I watch' < PW **ń-jáhin*
- j. [oh^wa'po?] 'my shoulder' < PW **ń-x^wapo*
- k. [o'lip] 'my piece' < PW **ń-t-íp*
- l. [owu'ke?] 'my house' < PW **ń-wuk^w-e*
- m. [o'lej'tek] 'my head' < PW **ń-t-éteq*
- n. [o'k^wej] 'my arm' < PW **ń-k^wej*
- o. [o'wex] 'my buttocks' < PW **ń-weχ*
- p. [oni'pil] 'my stomach' < PW **ń-nipit*
- q. [ʔowo'le?] 'my hair' < PW **ń-ʔwole*
- r. [opa'set] 'my lip' < PW **ń-pâset*

Finally, Viñas Urquiza (1974: 131) describes the first-person prefix in the Tartagal subdialect of Guisnay as *no-*, as in *no-p'ati* 'I punish'. Several apparent examples of this prefix are attested by Fernández Garay & Spinelli (2009: 167–168) in the variety of Misión Santa María (591); we believe, however, that these tokens contain an indefinite possessor prefix (PW **ńó-*) and not a first-person prefix, since Spinelli (2007) – our primary source on the variety of Misión Santa María – documents only *o-* as the first-person prefix.

- (591) Misión Santa María Wichí (Fernández Garay & Spinelli 2009: 167–168)
- a. *no-qantfete* ‘my knee’ < PW *^ʔ*nó-qamk’ete* ‘one’s knee’
 - b. *no-kaʔis* ‘my girlfriend’ < PW *^ʔ*nó-qa-ʔis* ‘one’s loved one’
 - c. *no-k’ahlitfu* ‘my tongue’ < PW *^ʔ*nó-q’ax-t-ik’i’u* ‘one’s tongue’

9.2.1.13 PM *ʔ-

The third-person possessive and the second-person active prefixes are homonymous in Wichí. While before vowels both consistently take the allomorph /ʔ-/ , before consonants their form varies from dialect to dialect.

The most common form is *la-*; it is found in Weenhayek (Claesson 2016: 215), Misión Santa María (Spinelli 2007), Misión La Paz (Avram 2008: 87, 93, 95), Vejoz as spoken in Paraje La Paz (Fernández Garay 2006–2007), and in Southeastern Wichí, including Rivadavia (Terraza 2009b: 67, 100), El Sauzalito, Colonia Muñiz, Teniente Fraga, El Sauzalito, Bazán (Braunstein 2009: 48–49), and Lower Bermejeño in general (Nercesian 2014: 163, 223). Nercesian (2014: 53, 120) documents [l̩] as an optional realization in Lower Bermejeño (592).

- (592) Lower Bermejeño Wichí (Nercesian 2014: 53, 120)
- a. [la'muq] ~ [l̩'muq] ‘dust (= its powder)’ < PW *ʔ-*mók^w*
 - b. [la'wu] ~ [l̩'wu] ‘her/his neck’ < PW *ʔ-*wo*
 - c. [lapa'tʃu] ~ [l̩pa'tʃu] ‘her/his foot’ < PW *ʔ-*pák^j'o*
 - d. [la'les] ~ [l̩'les] ‘her/his children’ < PW *ʔ-*lés*

In Misión El Carmen, the third-person possessive prefix is attested as [la-] or [l̩-] (593).

- (593) Misión El Carmen Wichí (Censabella 2009: 127, 130)
- a. [la'kuu] ~ [l̩a'kuu^h] ‘her/his mother’ < PW *ʔ-*qoh*
 - b. [l̩ə'ax] ‘her/his mouth’ < PW *ʔ-*q'áχ*

The form *le-* is attested in Vejoz as spoken in Misión Chaqueña by Viñas Urquiza (1974: 131) and Gutiérrez & Osornio (2015: 29) as well as in Lapacho Mocho by (Fernández Garay & Spinelli 2009: 164). It is also documented by Fernández Garay & Spinelli (2009: 150–151) in the forms [le'nix] ‘its smell’ and [le'pes] ‘its end’, but unfortunately the dialectal provenance of these forms is not identified (in total, five varieties are discussed in the cited paper: Paraje La Paz, Misión Santa María, Lapacho Mocho, Santa Victoria Este, and Las Vertientes).

The most divergent form, *ha-*, is documented in Tartagal, as in [ha.watsan'tfe-jah] ‘her/his life’ (Viñas Urquiza 1974: 131).

It seems unproblematic to reconstruct the preconsonantal allomorph of the PW third-person possessive and the second-person active prefix as *ʎ-. It is even possible that the sound in question occurred within roots, as in PW *ʎp'i ‘tayra’ > LB *lap'i* (Nercesian 2014: 48), Vejoz or Guisnay *lep'i* (Lunt 2016: 54), 'Wk *lap'í?* (Claesson 2016: 220).

9.2.2 Vowels

The Proto-Wichí vowel inventory */i e a á o u/ is virtually identical to that of Proto-Mataguayan, except that PM *ä merged with PM *e as PW *e (see §9.1.2.1).¹⁹ These Proto-Wichí vowels are largely preserved in all dialects except Southeastern. In addition, there appears to have been a somewhat more marginal seventh vowel, which we symbolize as PW *ɿ; it merged with PW *e in the Southeastern dialect and with PW *i in all other dialects (§9.2.2.1).

In the Southeastern dialect, as discussed in §9.2.2.2, the vowels of Proto-Wichí have undergone considerable change thanks to what we dub the Southeastern Wichí vowel shift (cf. Cayré Baito 2015). It likely originated as a pull chain, whereby PW *u was fronted, lowered, and unrounded to *e* (merging with the reflexes of PM *i and *ɿ), PW *o was consequently raised to *u*, and PW *á acquired rounding (the prototypical realization of the resulting vowel in the Southeastern dialect is [ɔ] in Rivadavia and Ingeniero Juárez and [o] in Lower Bermejeño).

Minor phenomena involving vowels are discussed in §9.2.2.4 (translaryngeal vowel copying), §9.2.2.5 (vowel lowering before uvulars and glottals), and §9.2.2.6 (vowel nasalization).

9.2.2.1 PW *ɿ

The vowel *ɿ is not preserved in any known variety of Wichí as an independent phoneme (it is unrelated to the allophone [ɿ] of the phoneme /i/, which occurs in some Wichí dialects after the palatal approximant: /ji/ [jɿ]). It is reconstructed

¹⁹Najlis (1971: 129–130) offers a reconstruction of Proto-Wichí (“Premataco”) vowels that differs considerably from ours; her proposed inventory of Proto-Wichí vowels includes ten phonemes: */i ɿ e ɛ i a u ɔ o ɔ/. Since the cited work does not present any linguistic data that would substantiate the analysis therein, we do not discuss Najlis’s (1971) proposal any further in this chapter. Nercesian & Arellano (2023) reconstruct a six-vowel inventory identical to ours, but their proposal diverges from ours in significant way, notably in their interpretation of the philological evidence. Regrettably, this book was already completed when we learned of Nercesian & Arellano’s (2023) study, and it will not be discussed further in this chapter.

9.2 From Proto-Wichí to the contemporary Wichí varieties

based on the correspondence between /e/ in Southeastern Wichí and /i/ in other dialects. Note that Southeastern /e/ may also reflect PW **e* (reflected as /e/ in all Wichí varieties) or PW **u* (reflected as /u/ in all varieties except Southeastern). That way, PW **ɪ* merges with **e* and **u* as /e/ in Southeastern Wichí, but with PW **i* in all other varieties.

Three clearest examples of PW **ɪ* are given in Table 9.6. In Southeastern Wichí, these are reflected with [e]; in other varieties, one finds [i].

Table 9.6: Development of PW **ɪ*

| | ‘egg’ | ‘yica bag’ | ‘black-legged seriema’ | source |
|---------------------------------|-------------------------------------|-----------------------|-------------------------------------|-----------------------------------|
| Proto-Wichí | *-ɬ-ík ^j u | *hílu | *xník ^j u | |
| Rivadavia | [ɬe ^h k ^h e] | [hẽ ^h le] | [inẽ ^h k ^h e] | Terraza (2009b: 89–90, 274) |
| Ingeniero Juárez (Barrio Viejo) | [ɬe ^h tʃɛ] | — | — | Cayré Baito (2015: 360) |
| Bazán | [ɬe ^h tʃ ^h e] | [hẽ ^h leʔ] | — | Braunstein (2009: 41, 50) |
| ‘Weenhayek | [ɬi:k ^h uʔ] | [hĩ:luʔ] | [ʔini:k ^h uʔ] | Claesson (2016: 32, 75, 150, 263) |
| Tartagal | [ɬi ^h tɕu] | — | — | Cayré Baito (2015: 360) |
| Misión Chaqueña (Vejoz) | [ɬitʃ ^h uʔ] | [hĩlu] | — | Viñas Urquiza (1974: 57, 106) |

Phonetically, PW **ɪ* must have occupied an intermediary position between **e* and **i* (maybe IPA [ɪ], but also [e] is a possibility if the prototypical realization of PW **e* was closer to [ɛ]). Alternatively, it could have been a diphthong ([eɪ] or the like), as suggested by the Nivaçle and Chorote cognates of PW **-ɬ-ík^ju* ‘egg’: Ni *-fajk^hu*, PCh **-éjk^huʔ*.

9.2.2.2 Southeastern Wichí vowel shift

One of the most notable features of the Southeastern dialect of Wichí is its vowel system. While the vowels **i*, **e*, and **a* of Proto-Wichí are preserved intact,²⁰ all back vowels change in the following way.

PW **u* merges with PW **e* as *e* (narrow transcription: [e] or [ɛ]²¹) in all subdialects of Southeastern Wichí. It is unknown whether this sound change involved any intermediate steps, such as **i* > **a*, **y* > **ø*, or **ɔ* > **a*. At any rate, this non-trivial sound change is exceptionless, and examples abound: PW **túnte* ‘stone’, **nap’u* ~ **náp’u* ~ **nap’úh* ‘s/he licks’, **púle* ‘sky, cloud’ > LB *tente* [ten’tɛ], *nap’e* [nãp’ɛ], *pele* [pe’le] (Nercesian 2014: 161, 278, 459), Rivadavia *tente* [ten’tɛ], *nape* [nã’pe] (Terraza 2009b: 25, 37), Ingeniero Juárez *nap’e* [nã’bɛ], *pele* [pe’lɛ] (Cayré Baito 2015: 367).

PW **o* raises to *ɔ* in Ingeniero Juárez (Cayré Baito 2015: 362) and to *u* in Rivadavia (Terraza 2009b: 49) and Lower Bermejeño (Nercesian 2014: 41).²² Examples of this sound change include PW **hi’no* ‘man’, **hólo* ‘sand’, **wóq’oh* ‘owl’ > LB *hi’nu* [hi’nú], *hulu* [hũ’lu], *wuq’u* [wu’q’u] (Nercesian 2014: 66, 161), Rivadavia *hinu* [hi’nú], *hulu* [hũ’lu] ‘dust’, *wuqu* [wu’qu] (Terraza 2009b: 25, 217–218), Ingeniero Juárez *hinu* [hi’ñũ], *hulu* [hũ’lɔ], *wuk’u* [wɔ’k’ɔ] (Cayré Baito 2015: 364, 367).

In turn, PW **á* acquires rounding and raises to *ɔ* in Rivadavia (Terraza 2009a: 77) and in Ingeniero Juárez (Cayré Baito 2015: 362), whereas in Lower Bermejeño its prototypical realization is *o* (Nercesian 2014: 41).²³ For simplicity’s sake, we represent the vowel in question as *o* even in the varieties of Rivadavia and Ingeniero Juárez (except in narrow transcriptions). Examples of this sound change include PW **ha’lá* ‘tree’, **nájijχ* ‘road’ > LB *ha’lo* [hã’lɔ], *’nojijχ* [’nõ’jix] (Nercesian 2014: 66, 110), Rivadavia *halo* [hã’lɔ], *-nojijχ* [-nõ’jix] (Terraza 2009b: 68, 83),

²⁰There may be slight allophonic differences across dialects involving these vowels. For instance, in Lower Bermejeño /i/ surfaces as [ɪ] following /j/ and /χ/, as in [jik] ‘s/he goes away’, [jɪ’waʔ] ‘slow’, [juk’ã’χɪ] ‘s/he chews’; /e/ lowers to [ɛ] after a uvular consonant, as in [nã’χɛt] ‘it is rotten’, [t’ã’mãχɛx] ‘s/he looks after it’; /a/ surfaces as [ɑ] next to a tautosyllabic uvular, as in [qɑ’mãχ] ‘still’, [ta.q’ã’χɑj] ‘s/he is strong’, [ʔis’tɑq] ‘white cactus’ (Nercesian 2014: 41). In the Ingeniero Juárez variety, Cayré Baito (2015: 362) describes the default realizations of /i/, /e/, and /a/ as [ɪ], [ɛ], and [ɐ], respectively, based on instrumental evidence.

²¹The mid-low realization [ɛ] is reported for the Ingeniero Juárez variety (Cayré Baito 2015: 362). In Lower Bermejeño, [e] is the default allophone, whereas [ɛ] is found after a uvular consonant, as in [nã’χɛt] ‘it is rotten’, [t’ã’mãχɛx] ‘s/he looks after it’.

²²The allophone [ɔ] shows up in Lower Bermejeño only word-finally when stressed, as in [ʔã.tsiŋãj’tɔ] ‘these women’ (Nercesian 2014: 41).

²³The allophone [ɔ] occurs in Lower Bermejeño next to a tautosyllabic uvular, as in [ʔɔq] ‘food’, [ʔã’qɔχ] ‘it is tasty’, [tɔχ] ‘realis conjunction’ (Nercesian 2014: 41).

9.2 From Proto-Wichí to the contemporary Wichí varieties

Ingeniero Juárez *halo* [hẽ'lo], *nojiχ* [nõ'jix] (Cayré Baito 2015: 367, 372). As a consequence, Southeastern Wichí no longer has a back low vowel that would contrast with /a/.

Finally, PW **i*, as shown in §9.2.2.1, also merges with PW **e* and **u* as *e* in Southeastern Wichí.

In the variety spoken in Misión El Carmen, only PW **u* and **o* change to *e*, *u*, respectively, as shown in (594a)–(594b). The reflex of **o* is also attested as [u] following velar stops and nasals in Misión El Carmen (and in El Sauzalito), as in (594c)–(594e). By contrast, PW **á* remains as a low vowel in that variety (Censabella 2009: 135–136), and its range of possible realizations includes [a] and [ɤ], as in (594f)–(594g). PW **a* is usually reflected as [a], though [a] and [ɤ] have also been attested, as in (594h)–(594l), suggesting that the contrast between /a/ and /a/ is fading away at least in some environments in Misión El Carmen.

(594) Misión El Carmen Wichí (Censabella 2009: 125, 127, 130, 132, 137)

- a. [ts^(h)ex^wə'lax] ‘paralytic’ < PW **tsux^wlaχ*
- b. [ʔⁱu'te] ‘ear’ < PW **-k^j'óte*
- c. [a'mũʔ] ‘grain’ < PW **ʔamo* ‘wound’
- d. [la'ku] ~ [la'kⁱur^h] ‘her/his mother’ < PW **ʔ-qoh*
- e. [kⁱur'kuuk] ‘butterfly’ < PW **kⁱók^wok^w*
- f. [iⁱkⁱɤt] ‘it is red’ < PW **ʔikⁱát*
- g. [ŋka^hpi] ‘my pocket’ < PW **ŋ-qhá-j-hih*
- h. [ju'kɤs] ‘tobacco’ < PW **jók^was*
- i. [k^ha] ~ [q^ha] ~ [kⁱa] ‘no’ < PW **qhá*
- j. [ka'nu] ‘needle’ < PW **-qáno*
- k. [-ʔax] ~ [-ʔax] ‘mouth’ < PW **-q'áχ*
- l. [is'kat] ‘s/he steals’ < PW **ʔi-sqat*

The sound correspondences that arose as the result of the Southeastern Wichí vowel shift are discussed in Messineo & Braunstein (1990) and Cayré Baito (2015), but no attempt at a comparative reconstruction is made in either of these works.

9.2.2.3 Vowels outside Southeastern Wichí

The Wichí dialects that did not undergo the Southeastern Wichí vowel shift typically have a vowel inventory composed of six phonemes: /i e a á o u/ (the seventh vowel of Proto-Wichí, */i/, merged with /i/ in these varieties, as discussed

in §9.2.2.1). Their typical realizations are, respectively, [i], [e], [a], [ɑ],²⁴ [o], [u]. In the variety of Tartagal, Cayré Baito (2015: 362) reports /i e a u/ to stand for [ɪ ɛ ɐ ʊ], based on acoustic evidence. In the variety of Misión Santa María, one minor allophone is [ɛ], which occurs as an optional realization of /e/ word-finally, as in [man'se] ~ [man'sɛ] 'boy' (Spinelli 2007). In the Paraje La Paz subdialect of Vejoz as described by Fernández Garay (2006–2007), /i e/ can optionally surface as [ɪ ɛ] in a number of environments, as in (595a)–(595d); only [ɛ], but not [e], is reported to occur in the latter variety following uvulars (595d). The vowel /u/ has the unrounded allophone [ʊ], which occurs following glottalized stops, as in (595e)–(595f).

(595) Paraje La Paz Wichí (Fernández Garay 2006–2007)

- a. [ɪje'la] 'tapir' < PW *xjé'lah
- b. [oka'sɪt] 'I stand' < PW *ŋ-t-qásit
- c. [pu'ɛʔ] 'sky' < PW *púle
- d. [la'qɛ] ~ [la'qɛ] 'it shines' < PW *laq'e
- e. [ona'ɸu] 'I lick' < PW *ŋ-náp'u
- f. [ʔɸu] 'it is hard' < PW *t'ún

In addition, the contrast between /ã/ and /a/ has been reported to be fading away or altogether non-existent in quite a number of dialects. For example, Cayré Baito (2015: 359) explicitly claims that no back low vowel has been attested in the variety spoken in Tartagal, and documents forms such as those in (596), suggesting that PW *a and *ã merged in Tartagal as a (phonetically [ɐ]).

(596) Tartagal Wichí (Cayré Baito 2015: 359)

- a. o-t-'an 'I shout' < PW *ŋ-t-'án
- b. hala 'tree' < PW *ha'lã
- c. sip'a 'police' < PW *sip'ã 'hat; fish sp. (*Sorubim lima* (?))'
- d. sop'a 'wax' < PW *sóp'a
- e. ts'ak 'navel' < PW *-ts'aq ~ *-ts'áq

In the Misión La Paz subdialect of Guisnay, Avram (2008) documents both [a] and [ɑ] but argues that [ɑ] is an allophone of /a/ in that variety, based on the

²⁴Spinelli (2007) represents this vowel as [ʌ] in the variety of Misión Santa María but still describes it as a "low back open unrounded vowel", suggesting that IPA [ɑ] is the correct symbol also in the Misión Santa María variety.

9.2 From Proto-Wichí to the contemporary Wichí varieties

absence of minimal pairs and on the fact that “the consultants also inconsistently produced and identified the back low unrounded vowel [ɑ]” (Avram 2008: 71). In the available corpus of the Misión La Paz variety, there are examples both of [ɑ] going back to PW *a, as in (597a)–(597d), and of [a] going back to PW *â, as in (597e)–(597f), though in most cases the lexical distribution of [a] and [ɑ] in Avram’s (2008) description does match the state reconstructed for Proto-Wichí, as shown in (597g)–(597j). Although Avram (2008: 71) is unable to determine the conditioning environment for the occurrence of the back allophone, she notes that “the majority of instances of [ɑ] occur before the following phonemes: /s/, /x/, /ʔ/, /q/, and /h/” and that “[i]t also occurs after /q/ and /h/”, leaving the question for future research. We surmise that the Misión La Paz subdialect of Guisnay may actually preserve the contrast between PW *a and *â, but in some cases PW *a may have changed into â (especially next to uvulars) and vice versa.

(597) Misión La Paz Wichí (Avram 2008)

- a. [hãt'es] ‘aloja, alcoholic beverage’ < PW *hat'es
- b. [qɑqɑt'tax] ‘turkey’ < PW *qátqał-tax
- c. [jaqaʔtuʔ] ‘it is yellow’ < PW *qáʔtu
- d. [la'qas] ‘horsefly’ < PW *laqas
- e. [ʔnoła'met] ‘one’s word’ < PW *ʔno-ł-âmet
- f. [pãʔan] ‘red pepper’ < PW *pánhã
- g. [hõ'sanʔ] ‘ax’ < PW *hósa'n
- h. [to'hwãj] ‘pots’ < PW *towh-áj^h
- i. [hãʔjax] ‘jaguar’ < PW *haʔjãχ
- j. [ni'jaq^w] ‘rope’ < PW *níjãk^w

Although /â/ and /a/ are reported to contrast in the Paraje La Paz subdialect of Vejoz, as in the minimal pair -paq ‘to paint’ and pãq ‘here’, Fernández Garay (2006–2007) notes that /a/ may surface as [ɑ] next to a uvular (598).

(598) Paraje La Paz Wichí (Fernández Garay 2006–2007)

- a. [qɑ'laq] ‘cocoi heron (*Ardea cocoi*)’ < PW *qalãq
- b. [wo'taq] ‘necklace’ < PW *-ʔwó-t-'aq

In the variety of Lapacho Mocho, instances of intraspeaker variation of the types [ʌ] ~ [a] (599a) and [ʌ] ~ [o] (599b) have been documented, corresponding to PW *â (Fernández Garay & Spinelli 2009: 164).

(599) Lapacho Mocho Wichí (Fernández Garay & Spinelli 2009: 164)

- a. [le'tʃas] ~ [le'tʃas] 'its tail' < PW *ʎ-k'ás
- b. [i'hɲjat] ~ [i'hɲjot] 'clay' < PW *ʎihhát

In the variety of Misión Santa María as described by Spinelli (2007) and in the Misión Chaqueña subdialect of Vejoz as described by Viñas Urquiza (1974), /â/ and /a/ are documented as contrastive units, but their distribution does not always match the state reconstructed for Proto-Wichí: compare Misión Santa María [a'kas] 'it is raw', [i'tas] 'matches', [i'hɲjat] 'clay' and PW *ʎaqas, *ʎitâ-s 'fire.PL', *ʎihhát (Spinelli 2007, Fernández Garay & Spinelli 2009: 168). At least in the case of the Misión Chaqueña subdialect of Vejoz, this may have to do with instances of mistranscription on Viñas Urquiza's (1974) part rather than with sound change, since a more recent work on the same variety by Gutiérrez & Osornio (2015) does attest /â/ (represented by means of the grapheme <â>) and /a/ in accordance with our Proto-Wichí reconstruction. For example, the reflex of PW *ʎ-ámte-s 'her/his words, language' is attested as ʎ-amte-s in Viñas Urquiza (1974: 65), but as ʎ-ámte-s in Gutiérrez & Osornio (2015: 15, 79).

9.2.2.4 Translaryngeal vowel copying

Translaryngeal vowel copying (sometimes referred to as vowel harmony in the literature) is a very limited phenomenon in Wichí. It has been documented in the Rivadavia and Ingeniero Juárez subdialects of Southeastern Wichí, where the vowel /i/ of the irrealis suffix /-h̥i/ and of the negative suffix /-h̥it'e/ progressively assimilates to the vowel /u/ of the preceding applicative suffix /-hu/. Examples from the variety of Ingeniero Juárez include [jeh̥e'tʰo'h̥o'dɛ] (underlying /i-het-h̥u-h̥it'e/) 's/he does not gather', [itsɔ'ɲo'h̥o'dɛ] (underlying /i-tson-h̥u-h̥it'e/) 's/he does not pin', [n̥isk̥e'tʰo'h̥o'dɛ] (underlying /ni-sqat-h̥u-h̥it'e/) 'I do not hide' (Cayré Baito & Carpio 2009: 97). An example from the Rivadavia variety is given below.

(600) Rivadavia Southeastern Wichí (Terraza 2009b: 50)

- a. wahat-ʎe i-tsoŋ-u-hut'e ɲ-qolo
 fish-fishbone 3I-pin-APPL-NEG 1SG-foot
 'The fishbone did not pin my foot.'

9.2.2.5 Vowel lowering

In some dialects of Wichí, the allomorph **ji-* of the Proto-Wichí verbal I-class prefix, which shows up before uvular consonants and **h* (see §9.1.1.7), has changed into *ja-*. This development is regular in *ʼWeenhayek* (601).

(601) *ʼWeenhayek* (Claesson 2016)

- a. *[ja]qákʰu-APPL* ‘s/he distrusts’ < PW **[ji]qákʰu-APPL*
- b. *[ja]qánkʰi?* ‘s/he destroys’ < PW **[ji]qánkʰi*
- c. *[ja]qáx* ‘s/he crushes’ < PW **[ji]qáx*
- d. *[ja]qój?* ‘s/he plays’ < PW **[ji]qój*
- e. *[ja]háŋ* ‘s/he follows’ < PW **[ji]háŋ*
- f. *[ja]hó-APPL* ‘s/he goes’ < PW **[ji]hó-APPL*
- g. *[ja]hút* ‘s/he pushes’ < PW **[ji]hút*
- h. *[ja]hán-ex* ‘s/he knows’ < PW **[ji]hán-ex*
- i. *[ja]húmiŋ* ‘s/he loves’ < PW **[ji]húmiŋ*

By contrast, the change never occurs in the Lower Bermejeño subdialect of Southwestern Wichí (602). Note that the sequence /ji/ is pronounced [jɪ] in Lower Bermejeño, as in [jɪk] ‘s/he goes away’, [jɪwaʔ] ‘slow’ (Nercesian 2014: 41).

(602) Lower Bermejeño Wichí (Nercesian 2014, Braunstein 2009)

- a. *[ji]qontʰi* ‘s/he destroys’ < PW **[ji]qánkʰi*
- b. *[ji]qox-ti* ‘s/he crushes’ < PW **[ji]qáx-tih*
- c. *[ji]quj* ‘s/he plays’ < PW **[ji]qój*
- d. *[ji]hon* ‘s/he follows’ < PW **[ji]háŋ*
- e. *[ji]hu-APPL* ‘s/he goes’ < PW **[ji]hó-APPL*
- f. *[ji]het-tsi* ‘s/he pushes’ < PW **[ji]hút-tshi*
- g. *[ji]han-ex* ‘s/he knows’ < PW **[ji]hán-ex*
- h. *[ji]hemin* ‘s/he loves’ < PW **[ji]húmiŋ*

In the Rivadavia subdialect of Southeastern Wichí, according to Terraza (2009b: 134–135), verbs that took **ji-* in Proto-Wichí may now take either *ja-* (if the agent acts with low intensity) or *?i-* (if the agent acts with high intensity), as in the following examples.

(603) Rivadavia Southeastern Wichí (Terraiza 2009b: 135)

- a. sip'o ja-hon malewu
 police 3I-follow thief
 'the police chases the thief' (without too much intention of actually catching up with the thief)
- b. sip'o ?i-hon malewu
 police 3I_{ACT}-follow thief
 'the police chases the thief' (until actually catching up)
- c. atsiṇa ja-hanex to j-omṭi
 woman 3I-know SUB 3I-speak
 'the woman knows how to speak' (with some knowledge of the language)
- d. atsiṇa i-hanex to j-omṭi
 woman 3I_{ACT}-know SUB 3I-speak
 'the woman knows how to speak' (with a very good knowledge of the language)
- e. hinu ja-hemen atsiṇa
 man 3I-love woman
 'the man loves the woman'
- f. hinu i-hemen atsiṇa
 man 3I_{ACT}-love woman
 'the man loves the woman' (and is deeply in love with her)

Little information is available to us on the reflexes of PW **ji-* in other dialects, such as *Vejoz* and *Guisnay*. The reflex *ja-* is attested as far east as in the *Ingeniero Juárez* subdialect of Southeastern Wichí: [jə'hēt] 's/he pushes' (Cayré Baito & Carpio 2009: 100).

The same kind of allomorphy is seen in the 'Weenhayek vocative prefix found in some kinship terms (no cognates in other Wichí varieties are known): compare 'Wk *?i-xk'ah* 'father!' and *ja-qoh* 'mother!' (Alvarsson & Claesson 2014: 445). This prefix goes back to the erstwhile first-person singular prefix, PM **ji-*, and is homophonous with the I-class prefix (itself a reflex of an erstwhile third-person prefix, PM **ji-*, extended to other persons by means of Watkins' Law).

The development in question is identical to a process that occurs optionally (or subdialectally) in *Iyojwa'aja'* (§8.2.3.6).

9.2.2.6 Nasalization

In many dialects of Wichí, vowels are allophonically nasalized following nasal onsets, but also following a /h/, represented by some authors as /h̃/ (Terraza 2009a, Cayré Baito & Carpio 2009). This is described for 'Weenhayek by Claesson (1994: 12–13), for the Ingeniero Juárez subdialect of Southeastern Wichí by Cayré Baito & Carpio (2009: 100), for the Rivadavia subdialect of Southeastern Wichí by Terraza (2009a: 78–79), and for the Lower Bermejeño subdialect of Southeastern Wichí by Nercesian (2014: 41–42).

(604) 'Weenhayek (Claesson 1994: 12–13)

- a. /Ø-nek/ [ñɛk] 's/he comes'
- b. /móp'i/ [m̃õ:'p'i?] 'white heron'
- c. /nísâh-és/ [ñĩ:sâ'hēs] 'shoes'
- d. /nú-lís/ [ñũ:'lɪs] 'bones'
- e. /hup/ [h̃ũp] 'hut'
- f. /ha'jáx/ [h̃ã'ʔjɑx] 'jaguar'
- g. /'nó-nhus/ [ʔñõ:'ñũs] 'one's nose'
- h. /tájhi/ [t̃ã:'j̃i?] 'woods'
- i. /la-wháj/ [l̃a'ŋwã:j?] 'its time'

(605) Southeastern (Ingeniero Juárez) (Cayré Baito & Carpio 2009: 100, 102–103)

- a. /nojix/ [ñõ'jɪx] 'road, path'
- b. /inot/ [ɪ'ñõt] 'water'
- c. /itox-muk/ [ɪ.t̃ɔx'm̃õk] 'ashes'
- d. /mak/ [m̃ɛk] 'thing'
- e. /i=hi/ [i'h̃ĩ] 's/he is'
- f. /jañet/ [j̃ɐ'h̃ɛt] 's/he pushes'
- g. /loj-ñen/ [l̃ɔ'j̃ɛn] 'they are alive'
- h. /ta-toj-ñit'e/ [t̃ɛt̃ɔ'j̃ɪd̃ɛ] 'they do not lose'
- i. /j-op(i)l-ñit'e/ [j̃ɔp'̃iɪd̃ɛ] 's/he does not come back'
- j. /tajhi/ [t̃ɛ'j̃i] 'forest'
- k. /f^wijhu/ [f̃^wɪ'j̃ũ] 'charcoal'

(606) Southeastern (Rivadavia) (Terraza 2009a: 78–79)

- a. /inot/ [i'nõt] 'water'
- b. /la-ñeseq/ [lañẽ'seq] 'her/his spirit'
- c. /ñalo/ [ñã'lo] 'tree'
- d. /ñinu/ [hĩ'nũ] 'man'
- e. /ta-qataj-ñen/ [taqata'hjẽn] 'they cook'

(607) Southeastern (Lower Bermejeño) (Nercesian 2014: 42)

- a. /ama/ [ʔa'mã] 'rat'
- b. /note/ [nõ'te] 'tapeti'
- c. /hope/ [hõ'pe] 'copula'
- d. /la-nhes/ [la'ñes] 'her/his nose'
- e. /la-whoj/ [la'mõj] 'its time'
- f. /tajhi/ [ta'ji] 'forest'
- g. /∅-tijoχ-pho/ [ti.jõχ'p^hõ] 's/he jumps over'
- h. /j-uq-tjhoχ/ [juq'tj^hõχ] 's/he crushes'

In the Misión La Paz subdialect of Guisnay, only /h/ – but not the nasals /m n/ – is reported to trigger nasalization in the following vowel, and sometimes in the preceding vowel as well (Avram 2008: 69–71, 83–84).

(608) Guisnay (Misión La Paz) (Avram 2008: 46–47, 70–71, 92)

- a. /holoʔ/ [hõ'loʔ] 'dust'
- b. /'no-k^jaheʔ/ [ʔnok^ja'hẽʔ] 'arrow'
- c. /o-jahiⁿ/ [oja'hĩnʔ] 'I watch'
- d. /'no-humin/ [ʔnõhũ'min] 'lover'
- e. /'wahat-woʔ/ [ʔwãhãt'woʔ] 'fisherman'
- f. /la-womha-j/ [lawo'mãj] 'gorges'
- g. /k^jowh-aj/ [k^jo'mãj] 'holes'
- h. /amaʔ/ [a'maʔ] 'rat'
- i. /pinu/ [pi'nu] 'sugarcane'
- j. /nahajox/ [nahã'jox] 'heat'

Some Wichí lects lack nasalization in the environments described above. In the Paraje La Paz subdialect of Vejoz, vowels are reported to be nasalized before nasal consonants (Fernández Garay 2006–2007). In Misión Santa María, nasalization is reported to occur after the sequence [ɲn] (< PW **jh*, **nh*), as in [oh'nũs] ‘my nose’, and sometimes next to nasals, as in [as'nãm] ‘blind’.

9.2.3 Word-level prosody

We have seen in §9.1.3 that two suprasegmental phenomena coexisted in Proto-Wichí: contrastive vowel length, which continues the left-aligned accent of Proto-Mataguyan, and right-aligned stress, which in all likelihood represents a Wichí innovation.

The only variety known to preserve the contrastive vowel length of Proto-Wichí is Weenhayek, whereas in all other lects no equivalent phenomenon has been documented so far. It is possible that it is preserved in some varieties spoken in Argentina, such as the variety of Misión Santa María, where forms such as [wo'ji:s] ‘blood’ and [a:m] ‘you’ (< PW **wojís* and **ʔá'm*) have been attested (Spinelli 2007).²⁵ Avram (2008: 63) reports that in the Misión La Paz subdialect of Guisnay “there is some slight vowel lengthening in certain environments, but at this time, these environments are not clear”. Future documentation is needed to ascertain the status of the long vowels in Misión Santa María, Misión La Paz, and possibly other varieties spoken in the vicinities of the Bolivian border. In the Lower Bermejeño subdialect of Southeastern Wichí, vowels that carry primary or secondary stress are automatically lengthened (Nercesian 2014: 123), but this phenomenon clearly has nothing to do with the contrastive vowel length of Proto-Wichí.

As for the right-aligned stress, the general pattern is apparently preserved in all varieties of Wichí, though the underlying specifications of certain suffixes (i. e., whether metrical or extrametrical) may differ across dialects, as we have seen in §9.1.3.2. Secondary stress is relatively well described only for the Lower Bermejeño subdialect of Southeastern Wichí, where iambic feet are built from

²⁵An anonymous reviewer remarks that the vowel length in these specific examples “seems to be related to stress, but it does not necessarily mean that vowel length is contrastive” in the variety of Misión Santa María. We agree that the evidence is inconclusive, especially given the fact that PW long vowels are often reflected as what Spinelli (2007) documents as short vowels: [ta'tʃ'i] ‘rufous hornero’, [t'e'tʃe] ‘her/his thigh’ (< PW **táts'i*, **t-ék'e*). Note, however, that the reflexes of PW short stressed vowels are uniformly attested as short by Spinelli (2007), with no exceptions: [o'jiɪ] ‘I die’, [i'maʔ] ‘s/he sleeps’ (< PW **n-jilʰ*, **ʔi-mâʔ*). More data would be needed in order to arrive at robust conclusions regarding the status of vowel length in the variety of Misión Santa María.

9 Wichí

the left edge of the word and the heads of the non-final feet receive secondary stress, as in (*ŋ-j-is*)(*t^{hi}la*)-(ʔ*am*) ‘I will cut you’, (*la-qa*)(*tih-jen*)-(ʔ*nũ*) ‘you make me jump’ (Nercesian 2014: 122). Since no such information is available on other dialects of Wichí, it is currently not possible to reconstruct the secondary stress pattern of Proto-Wichí.

10 Dictionary

This chapter contains a list of Mataguayan cognate sets (and contact etymologies that may be confused for cognate sets). We start by presenting reliable lexical cognate sets with reflexes at least in one of Maká or Nivaçle, and at least in one of Chorote or Wichí (§10.1). We then proceed to nominal derivational affixes (§10.2), valence and spatial suffixes (§10.3), demonstratives (§10.4), inflectional prefixes (§10.5), and inflectional suffixes (§10.6). After that, we list cognate sets restricted to Maká and Nivaçle (§10.7), and those restricted to Chorote–Wichí (§10.8). The next section is devoted to roots present only in Iyojwa’aja’ and Wichí (these have been likely borrowed from Wichí to Iyojwa’aja’; §10.9). Finally, we list several etymologies that reunite material which is unlikely to go back to Proto-Mataguayan, but has rather been diffused between Mataguayan languages by direct or indirect contact (§10.10).

When applicable, we include information on uncertainties regarding the phonological or semantic reconstruction, irregularities in specific languages or dialects, forms that we suspect to be ill-transcribed in our sources, and sources of each datum. For nouns, we indicate the plural suffix (or the entire plural forms), whereas verbs are listed with a third-person realis prefix (see §1.4 for more details). We seek to systematically include information on formal lookalikes in the Guaicuruan family (which may turn out to be cognate with the Mataguayan forms if the Macro-Guaicuruan hypothesis is confirmed) and on previous works where the cognate sets in question had been identified.

10.1 *Bona fide* PM etymologies

*-ajeʔk ~ *-ajéʔk; *-q-ájeʔk ‘honeycomb’ [1]

Ni -ajeʔtʃ, -ajtʃe-j; -k-ajetʃ (Seelwische 2016: 68, 379) • PCh *-q-ájek > Ijw ʔin-k-ájik ‘honey’ (Drayson 2009: 108)

[1] PM *ʔaqájeʔk ‘wild honey’ is obviously derived from this root.

Mocoví -iʔja:k ‘load; honeycomb’ (Buckwalter et al. 2014) is somewhat similar to the Mataguayan forms, but this may be accidental.

Najlis 1984: 12 (*k’ajek’)

***n-ap'u ~ *n-aφ'u (~ *-á- ~ *-ú) [1] 'to lick'**

Ni *n-ap'u* [2] (Seelwische 2016: 181) • PCh **[ʔi]<n>áp'u?* [3] > Ijw *[ʔi]n'ép'u-w-e?* / *-náp'u-w-e?*; I'w *-nápu?*, *-nápu-un*, *-nápu-ʔwe?* [4]; Mj *[ʔi]n^(j)ép'o?* / *-náp'o?* [5] (Carol 2014b; Drayson 2009: 102; Gerzenstein 1983: 150, 204; Carol 2018) • PW **<n>ap'u (~ *-á- ~ *-úh)* [1 3] > LB *nap'e*; 'Wk *[ʔi]náp'u?* (Nercesian 2014: 278; Braunstein 2009: 52; Claesson 2016: 257)

[1] The prosodic properties of the root cannot be established because the 'Weenhayek cognate is not attested without extra prefixes (the forms with prefixes are not revealing because in trisyllabic words the vowel of the peninitial syllable is lengthened in any case).

[2] Campbell et al. (2020: 27, 43) attest the variant *n-aʔp'u*, where [ʔp'] is likely an allophone of /p'/.

[3] The cislocative prefix **n-* has been fossilized as a part of the stem in Chorote and Wichí.

[4] The plain stop *p* in Gerzenstein's (1983) data of Iyo'awujwa' must be a mistranscription.

[5] The lowering of unstressed PCh **u* to Mj *o* is irregular.

Obviously related to Proto-Guaicuruan **-ap'i* 'to lick, to suck' (Viegas Barros 2013b, #81; cf. Viegas Barros 2013a: 304).

Najlis 1984: 9 (**nap'u*); Viegas Barros 2013a: 304 (**-n-ap'u*)

***-á(-j^h)-xi? (*-l) [1] 'mouth, door'**

Mk *-e<xi?>* (*-l*), (Towothli doculect) <-aihe> (Gerzenstein 1999: 168; Hunt 1915: 244) • Ni *-a<fi>* (*-k*) (Seelwische 2016: 49) • (?) PCh **-á<aj?>* (**-is*) [2] > I'w *-áj* (*-is*); Mj *-áaj?* (*-is*) (Gerzenstein 1983: 117; Carol 2018) • PW **-á-j-hi* (**-l^h*) > LB *-t-aç-i* 'word' (*-t*); Vej *-t-aʔ-i* [3]; 'Wk *-t-ác-i?* (*-t*) 'oral cavity; language; cutting edge' (Nercesian 2014: 191, 209; Viñas Urquiza 1974: 65; Claesson 2016: 73)

[1] This root is a compound of an unidentified element **-á-* (as suggested by modern Maká and Nivaçle) or **-áj-* (as suggested by the Towothli doculect of Maká and Wichí) and **-xi?* 'inside a recipient'. It is possible that the Wichí reflex continues a compound with a pluralized first element: PM **-á-j^h-xi?*.

[2] It is unclear whether the Chorote form belongs here: the expected reflex would be ***-áhi?* (***-l*), with subsequent translaryngeal assimilation to **áha* or **áhe* in the contemporary varieties, not **-á<haj?>* (**-is*).

[3] This normalized form is based on the attestations *-tajhni* (Viñas Urquiza 1974: 65) and *łahpi* (Fernández Garay 2006–2007: 213).

Najlis 1984: 32 (**hlahni* 'mouth'); Viegas Barros 2002: 142 (**łaxi* 'door')

***n-át 'to fall on its own'**

Ni *n-at* 'to fall (of ripe fruits)' (Seelwische 2016: 183) • PW **<n>át* [1] > 'Wk *nát* 'to fall on the ground (e.g. of leaves)' (Claesson 2016: 258)

[1] The cislocative prefix **n-* has been fossilized as a part of the stem in Wichí.

Viegas Barros (2013a: 320) compares the verb with Proto-Qom **-ʔot* ‘downwards’, which could be spurious.

Viegas Barros 2013a: 320 (**-(n)-At*)

***-áwá(?) ‘flower’**

Ni *-aβā* (ChL-Py *-aβā*) (-s) (Seelwische 2016: 51; Campbell et al. 2020: 73) • PCh 3 **hl-áwo?* [1] > I’w 3 *hl-áwo* ~ *hl-áwu* (-l) [2]; Mj 3 *hl-áwo?* (Gerzenstein 1983: 146, 198; Carol 2018) • PW **-t-áwo* [1] > LB *t-awu*; Vej *t-awo*; ’Wk *-t-áwo?* (Nercesian 2014: 161; Viñas Urquiza 1974: 65; Claesson 2016: 140, 234)

[1] The raising of PM **ā* to PCh/PW **o* is not known to be regular.

[2] The absence of a final *ʔ* in Gerzenstein’s (1983) data of Iyo’awujwa’ must be a mistranscription.

Obviously related to Proto-Guaicuruan **-awo<qó>* ‘flower’ (the shorter root is preserved in Proto-Pilagá–Toba **-awó* ‘to bloom’) (Viegas Barros 2013b, #179; cf. Viegas Barros 2013a: 310). Viegas Barros 2013a: 310 (**-Awó*); Gutiérrez 2015b: 254

***-áʔ (*-j^h) ‘fruit’**

Mk 3 *t-el?* (-j) (Gerzenstein 1999: 252) • Ni *-aʔ* (-j) (Seelwische 2016: 35) • PCh 3 **hl-áʔ* (**-j^h*) > Ijw 3 *hl-áʔ* (*-j<is>*) [1]; I’w 3 (*h*)*l-áʔ* (-j); Mj 3 *hl-áʔ* (*-jh*) (Carol 2014a: 77; Drayson 2009: 130; Gerzenstein 1983: 145, 199; Carol 2018) • PW **-t-áʔ* (**-j^h*) > LB *-t-aʔ* (-j); Vej *-t-a-j*; ’Wk *-t-áʔ* (-ç) (Nercesian 2014: 65, 170; Viñas Urquiza 1974: 65; Claesson 2016: 73, 230)

[1] The Iyojwa’aja’ plural suffix is innovative.

Obviously related to Proto-Guaicuruan **-a* ‘fruit (suffix)’, **-eʔ* ‘fruit’ (with a fossilized third-person prefix) (Viegas Barros 2013b, #705, #212; cf. Viegas Barros 2013a: 310).

Viegas Barros 2013a: 310 (**-aʔ*); Gutiérrez 2015b: 254

***-áφe(?) ‘tooth’**

Mk (Lengua doculect) <hiafué> (Demersay 1860: 456) • PCh **-áhwe?* (**-j^h*) > I’w *-áf^we?* (-j); Mj *-áhwe?* (-j) (Gerzenstein 1983: 117; Carol 2018)

Obviously related to Proto-Guaicuruan **-owe* ‘tooth’ (Viegas Barros 2013b, #463).

***n-ájin ‘to go first’**

Mk [*wa*]<*th*>*ajin* [1] (Gerzenstein 1999: 363) • Ni *n-ájin* (Seelwische 2016: 215) • PCh **[ʔi]<n>ájin* [2] > Ijw [*ʔi*]*n’á’n* / *-ná’n* [3]; I’w *-nájin*; Mj [*ʔi*]*néjin* / *-nájin* (Carol 2014a: 77, fn. 4; Drayson 2009: 102; Gerzenstein 1983: 149; Carol 2018)

[1] We have no explanation for the occurrence of the sequence *-th-* in Maká.

[2] The cislocative prefix **n-* has been fossilized as a part of the stem in Chorote.

[3] The sequence **-ji-* was irregularly lost in Iyojwa’aja’.

PM 1 **h-ák*, 2 **ʔ-ák*, 3 **[j]ik*, 1IRR **j-ik*, 2IRR **∅-ʔák*, 3IRR **n-ák* ‘to go away’; CISL **n-ák* ‘to come, to walk’

Mk 1 *h-ak*, 2 *ʔ-ak* [1], 3 *ik*, 2IRR *∅-ak*, 3IRR *n-ak* [1]; *n-ek* (Gerzenstein 1994: 92; Gerzenstein 1999: 227, 268) • Ni 1 *x-ák*, 2 *ʔ-ák* [1], 3 *[j]itf*, 1IRR *j-itf*, 3IRR *n-ák* [1]; *n-atf* (Seelwische 2016: 152, 380) • PCh 1 **∅-ʔák*, 2 **hl-ék*, 1IRR **j-ík*, 2IRR **∅-ʔák*, 3IRR **n-ék* [2] > Ijw 1 *ʔá-k*, 2 *hl-ék*, 1IRR *j-ík*, 2IRR *∅-ʔák*, 3IRR (*ʔi*)*n-ék*; Iʼw 1 *á-k* ~ *a-ék*; 2 *hl-ék*; Mj 1 *ʔa-ʔék*, 2 *hl-ék* (Carol 2014a: 100; Drayson 2009: 158; Gerzenstein 1983: 103; Carol 2018) • PW 2 **ʔ-eq*, 3 *[j]iq*; **n-eq* > LB 2 *ʔ-eq*, 3 *[j]iq*; *n-eq*; Vej *[j]ijk* ~ *[j]ik* ~ *[j]ek* [3]; *n-ek*; ʼWk 2 *ʔ-ek*, 3 *[j]ik*; *n-ek* (Nercesian 2014: 145, 226; Viñas Urquiza 1974: 68, 84; Gutiérrez & Osornio 2015: 38; Claesson 2016: 261, 544)

[1] Maká and Nivaêle point to PM **ʔ-ák* ‘you go’ and **n-ák* ‘that s/he go’ rather than **ʔ-ák* ‘you go’, **n-ák* ‘that s/he go’, possibly due to analogy with the first-person form. The same allomorph of the root is also found in the irrealis paradigm (Mk 1 *h-ak*, 2 *∅-ak*, 3 *n-ak*, 1+2 *xin-ak-kij*; Ni 3 *n-ák*, 1+2 *ʔn-ák*, but 1 *jitf*, 2 *mâ*) and, in Nivaêle only, in the first-person inclusive realis (1+2 *ʔn-ák*).

[2] In Chorote, the third-person realis of this verb is suppletive: PCh **[j]áʔm* > Ijw *[j]áʔm*; Iʼw *[j]ém*; Mj *[j]ém*.

[3] The variation attested in Vejoz is probably due to the fact that /ji/ surfaces as [jr] in Wichí. Obviously related to Proto-Guaicuruan **-eko* ~ **-iko* ‘to go’ (Viegas Barros 2013b, #202; cf. Viegas Barros 2013a: 305).

Viegas Barros 2013a: 305 (**-ak* ~ **-ek* ~ **-uk*)

**[j]ám* ‘to arrive’ (MN), ‘to go away’ (Ch); CISL **n-ám* ‘to arrive here’ (MN), ‘to come here’ (ChW)

Mk *n-am* (Gerzenstein 1999: 118) • Ni *[j]am*; *n-am* (ChL-Py *n-ám*) (Seelwische 2016: 43, 180; Campbell et al. 2020: 236) • PCh **[j]ám* ‘to go away.3IRR’ > Ijw *[j]áʔm*; Iʼw *[j]ém*; Mj *[j]ém* [1]; **<n>ám* [2] ‘to come here’ > Ijw *náʔm*; Mj *nám* (Carol 2014a: 77, fn. 4; Drayson 2009: 141, 158; Gerzenstein 1983: 103; Hunt 1994; Carol 2018) • PW **<n>ám* [2] > LB *nom*; Vej *nám*; ʼWk *nám* (Nercesian 2014: 145; Braunstein 2009: 53; Viñas Urquiza 1974: 68; Claesson 2016: 252)

[1] Carol (2018) documents this Manjui form as *[j]ém*, which could be a mistranscription.

[2] The cislocative prefix **n-* has been fossilized as a part of the stem in Chorote and Wichí. Fabre 2014: 306

**-á-mmi-ʔs*, **-lé-mmi-ts* ‘small, thin’ [1]

Mk *-a-mmi-ʔs*, *-li-mmi-s* ‘small’ [2] (Gerzenstein 1999: 247) • Ni *-<ʔ>amis-tʔe* (Seelwische 2016: 163) • PW **-<ʔ>áms<a>*, **-léms<a>-s* > LB *-ʔo(m)sax* ‘small’ [3], *-ʔemsas* ‘small’ [4]; Vej *-ʔamsah*, *-lemsa-s* [5]; Guisnay *-ʔámsah*,

-<le>*lemsa-s* ‘small’ (Braunstein 2009: 51; Nercesian 2014: 355, 374, 386; Viñas Urquiza 1974: 65; Gutiérrez & Osornio 2015: 63; Lunt 2016: 57)

[1] This term is evidently derived from PM **-á’s* ‘son’, **-léts* ‘offspring’ by means of the infix **-mmi-*. The derivation model is still morphologically transparent in Maká, where the masculine form *-a-mmi-’s* is derived from *-a’s* ‘son’, feminine form *-asi-mmi-’?* is derived from *-asi’?* ‘daughter’, and the plural form *-li-mmi-ts* is derived from *-lits* ‘children’.

[2] The preglottalized coda in Maká is attested in the New Testament (e.g. James 3:4).

[3] The Lower Bermejeño reflex is attested as *-łomsax* by Braunstein (2009) and as *-łosax* by Nercesian (2014). The irregular loss of **m* is also documented in the Rivadavia subdialect by Terraza (2009b: 127, 199).

[4] In Lower Bermejeño, *-łemsas* (with an irregular *ł* instead of the expected **l*) no longer behaves as the plural form, judging by the examples given in Nercesian (2014: 355, 374).

[5] The Vejoz singular reflex is unexpectedly documented as *-łamsah* rather than **-łámsah*.

***[t](’)án [1] ‘to shout’**

(?) Mk *[t]’an* ‘to win’ (Gerzenstein 1999: 121) • Ni *[t]’án* (Seelwische 2016: 104) • PCh **[t]’án* > Ijw *[t]’án*; I’w *-án-ej* ‘to call’; Mj *[t]’án* (Drayson 2009: 149; Gerzenstein 1983: 121; Carol 2018) • PW **[t]’án* > LB *[t]’on*; Vej *[t]’án*; ’Wk *[t]’án* (Nercesian 2014: 42; Viñas Urquiza 1974: 78; Claesson 2016: 428)

[1] Nivačle and Chorote point to PM **-án*, Wichí and Maká (if the Maká word belongs to this cognate set) to **-’án*.

Najlis 1984: 21 (3 **j-t’án*)

***-áni’s ‘stinger’**

Mk 3 *ł-ani’s*, *ł-ansi-ts*; *-ansi-’i* ‘to sting’ (Gerzenstein 1999: 247) • Ni 3 *ł-ánis* (*-ik*) (Seelwische 2016: 170) • PCh 3 **hl-ánis* > Ijw 3 *hl-ánis*; Mj 3 *hl-ánis* (Drayson 2009: 129; Carol 2018) • (?) PW 3 **ł-á’ni* [1] > ’Wk 3 *ł-á’ni?* (*-lis*) (Claesson 2016: 70)

[1] The preglottalized coda in PM is reconstructed based on the Maká reflex, as attested in the New Testament (1 Corinthians 15:56).

[2] It is not clear that the ’Weenhayek word belongs here (the expected reflex would be **ł-ánis*).

Mocoví *-a?na* ‘needle, stinger’ (Buckwalter et al. 2014) and Abipón *-aana* ‘thorn, needle’ (Najlis 1966: 11) are somewhat similar to the Mataguayan forms, but this may be accidental. Viegas Barros (2013a) traces the Mocoví form back to Proto-Qom **-qaná* ‘needle’.

***-áp, 3 *’[j]ip [1] ‘to cry’**

Mk *-ap*, 3 *ip* (Gerzenstein 1999: 122) • Ni *-ap* (ChL-Py *-áp*), 3 *[j]ip* (Seelwische 2016: 46) • PCh **[j]áp* ‘to cry, to make noise (of animals)’ > Ijw *[j]áp*; I’w/Mj *[j]ép* / *-áp* (Drayson 2009: 158; Gerzenstein 1983: 43, 121; Carol 2018) • PW

*^ʔ[j]ip ‘to make noise (of animals)’ > LB ^ʔ[j]ip-ti ‘to chirp’; Vej [j]ip ‘to chirp’ [2]; ^ʔWk ^ʔ[j]ip (Nercesian 2014: 186; Viñas Urquiza 1974: 84; Claesson 2016: 125)

[1] This verb evidently presented the same alternation as PM *-ʔā(?)l, 3 *^ʔ[j]i(?)l ‘to die’ (ChW). Chorote and Wichí generalized the allomorphs with *ā and *i, respectively.

[2] The absence of a glottal stop or glottalization in the root-initial position in Viñas Urquiza’s (1974) attestation of the Vejoz reflex could result from mistranscription.

Possibly related to Proto-Guaicuruan *-ap’a ‘to suffer’ (Viegas Barros 2013b, #65; cf. Viegas Barros 2013a: 304).

Viegas Barros 2013a: 304 (*-ap)

***[w]ápil ‘to return thither’ [1]**

Mk [w]apil ‘to return from an unspecified place’ (Gerzenstein 1999: 296) • Ni ChL-Pi [β]apek, ChL-Py [β]ápek [2] (Seelwische 2016: 178; Campbell et al. 2020: 238) • PCh *^ʔ[j]ápil ‘to return’ > Ijw [j]ápiʔ / -ápiʔ [3], [j]ápil-i / -ápil-i; Iʔw -ápil-met, -ápil-i; Mj [j]épil / -ápil (Drayson 2009: 158; Gerzenstein 1983: 121; Carol 2018) • PW *^ʔ[j]ápil^h > LB [j]opit ‘to return to one’s place of origin’; Vej [j]apil; ^ʔWk [j]ápit / [j]ápn- (Nercesian 2014: 308; Viñas Urquiza 1974: 85; Claesson 2016: 516–519)

[1] Obviously derived from PM *^ʔ[t]píl ‘to return hither’ and related to Proto-Guaicuruan *-op’il ‘to return’ (Viegas Barros 2013b, #443).

[2] The irregular vowel *e* in Nivaçle is likely a dialectal development in Chishamnee Lhavos (the verb is not attested in Shichaam Lhavos), just like in [t]pek ~ [t]pik ‘to return hither’ (Stell 1987: 498).

[3] The loss of the stem-final **l* in Iyojwa’aja’ is irregular. Cf. the form [j]ápil^h-a-hahme ‘it returned again’ (Carol 2014b), where *l* resurfaces before the punctive suffix -a.

Hunt 1915: 239

***[j]áp’ä(?)t ~ *[j]áφ’ä(?)t ‘to burn’**

Ni [j]ap’a^t ~ -áp’a^t (Seelwische 2016: 47) • PCh *^ʔ[j]áp’e^t > Ijw [j]áp’it / -áp’it ‘to throw in a large fire’ (Drayson 2009: 158) • PW *^ʔ[j]áp’e^t > ^ʔWk [j]áp’e^t (Claesson 2016: 517)

***-áq, *-qá-ts ‘food’**

Mk -aq, -(a)qa-ts [1] (Gerzenstein 1999: 124) • Ni -ák, -ká-s (Seelwische 2016: 348) • PCh *-ák, *-qá-s > Ijw -ák, -ká-s; Iʔw -ák, -ák-es [2]; Mj -ák, -ká-s (Carol 2014a: 77, 79, fn. 6; Drayson 2009: 129; Gerzenstein 1983: 118; Carol 2018) • PW *-t-áq > LB -t-oq; Vej -t-ák; ^ʔWk -t-áq (Nercesian 2014: 166; Viñas Urquiza 1974: 65; Claesson 2016: 71); PW *-qá<s> ‘cultivated plant (possessed)’ [3] > LB -qo<s>; ^ʔWk -qá<s> ‘plant (possessed), vegetable’ (Nercesian 2014: 215; Claesson 2016: 82, 220)

[1] Both *-qa-ts* and *-aq-ats* are reported as the plural forms of *-aq* in Maká. Only *-qa-ts* appears to be etymological; the variant *-aq-ats* must have been analogically based on the singular form *-aq*.

[2] The plural Iyo'awujwa' form attested by Gerzenstein (1983) is not etymological.

[3] PW **-qás* 'cultivated plant (possessed)' is a phonologically regular (but semantically shifted) reflex of PM **-qá-ts* 'food (*plural*)'; the erstwhile plural suffix is no longer segmentable.

Obviously related to Proto-Southern Guaicuruan **-oq* 'food', with reflexes in all daughter languages, including Mocoví *-oq* (Buckwalter et al. 2014), Toba-Qom *-oq* (Buckwalter & Buckwalter 2013: 2), Pilagá 3 *hal-oq* (Vidal 2001: 31), Abipón *-ak* (Najlis 1966: 27).

Campbell & Grondona 2007: 15

***-á's 'son'**

Mk *-a's* [1] (Gerzenstein 1999: 128) • Ni *-á's* (Gutiérrez 2015b: 36; Seelwische 2016: 46) • PCh **-ás* > Ijw/I'w/Mj *-ás* (Carol 2014a: 94; Drayson 2009: 129; Gerzenstein 1983: 122; Carol 2018) • PW **-t-ás* > LB *-t-os*; Vej *-t-ás*; 'Wk *-t-ás* (Nercesian 2014: 166; Viñas Urquiza 1974: 65; Claesson 2016: 71, 400)

[1] The preglottalized coda in Maká is attested in the New Testament (e.g. Matthew 1:7) as well as in Braunstein (1987: 62).

Viegas Barros (2013a: 312) notes the similarity with Proto-Guaicuruan **-et'e-tfi-k* (male), **-et'j-o* (female) 'orphan; stepchild', which could be spurious.

Hunt 1915: 240; Viegas Barros 2013a: 312 (**-As*)

***-áse? [1] 'daughter'**

Mk *-asi?* (*-j*) [2] (Gerzenstein 1999: 128) • Ni *-áse* (Seelwische 2016: 213) • PCh **-áse?* > Ijw/I'w/Mj *-áxse?* (Carol 2014a: 79, fn. 7; Drayson 2009: 129; Gerzenstein 1983: 124; Carol 2018) • PW **-t-áse* > LB *-t-ose*; Vej *-t-áse*; 'Wk *-t-áse?* (Nercesian 2014: 166; Viñas Urquiza 1974: 65; Claesson 2016: 71)

[1] The root is obviously derived from PM **-á's* 'son' by means of the non-productive feminine suffix **-e?*.

[2] Maká has innovated in having a plural form of this noun; all other languages point to a suppletive plural **-léts* 'offspring (sons and/or daughters)'.
Hunt 1915: 240; Najlis 1984: 11 (**áhse*, 3 **hl-áse*); Viegas Barros 2013a: 312 (**-As-e?*)

***[n]át ~ *[n]át 'to bleed'**

Mk *[n]at-xu?* [1] (Gerzenstein 1999: 132) • Ni *[n]át* (Seelwische 2016: 201) • PCh **<n>át-* > Mj *náht-ij?*, CAUS *[ʔi]n(i)éht-it / -náht-it* • PW **<n>át-* ~ **<n>át-* > Vej *nát-ti* 'to bleed (of nose)' (Lunt 2016: 64)

[1] Maká *-ʔathi-ts* 'blood', *[i]ʔathi-j* 'to menstruate' (Gerzenstein 1999: 131) hardly belong here, since the stem-initial glottal stop lacks any correspondence in Manjui and Vezjoz.

10 Dictionary

Viegas Barros (2013a: 309) compares this suffix to Proto-Southern Guaicuruan **-ʔet'otá* 'vein' (Viegas Barros 2013b, #684). We suggest that it could be compared to Proto-Guaicuruan **-awot* 'blood' (Viegas Barros 2013b, #180) instead.

Viegas Barros 2013a: 309 (**-ʔt'*)

**-áʔt, *-át-its* 'drink'

Ni *-áʔt, -át-is* (Seelwische 2016: 356) • PCh **-át* (**-es*) > Ijw *-át*; Mj *-át* (*-es*) (Drayson 2009: 129; Carol 2018) • PW **-t-át* > LB *-t-ot*; Vej *-t-át*; 'Wk *-t-át* (Nercesian 2014: 213; Viñas Urquiza 1974: 66; Claesson 2016: 71)

Viegas Barros (2013a: 300) notes the similarity with Proto-Guaicuruan **-Vtá-qa* 'alcoholic drink' (Viegas Barros 2013b, #611) and attributes it to language contact.

Rejected: Najlis (1984: 46) compares Ni *-áʔt* 'drink' to the reflexes of PM **ʔat'e(°)(t)s ~ *ʔat'ä(°)(t)s* 'aloja drink'.

**[j]áte(°)χ* 'to be fat'

Ni *[j]átex* (Seelwische 2016: 389) • PCh **[j]átah* > Ijw *[j]áta*; I'w *-átah*; Mj *[j]éta / -áta* (Drayson 2009: 158; Gerzenstein 1983: 122; Carol 2018) • PW **[j]átax* > LB *[j]otax*; Vej *[j]atah* [1]; 'Wk *[j]átax* (Nercesian 2014: 224, 252; Viñas Urquiza 1974: 83; Claesson 2016: 519)

[1] The Vejoz form is likely mistranscribed in Viñas Urquiza (1974: 83); the expected reflex would be **[j]átah*.

Likely related to Proto-Guaicuruan **-ot'jáqa* 'to be fat' (Viegas Barros 2013b, #454; cf. Viegas Barros 2013a: 308).

Najlis 1984: 44 (**(ja)átha*); Viegas Barros 2002: 143 (**-Atax*); Viegas Barros 2013a: 308 (**-Atah*)

**-áʔw-APPL* 'to be' [1]

Mk 1 *h-aʔw-APPL*, 2 *t-aʔw-APPL*, 1+2 *xu-uʔw-APPL -kii*, 3IRR *n-aʔw-APPL*, 1+2IRR *xina-ʔw-APPL -kii* (Gerzenstein 1994: 92; Gerzenstein 1999: 359) • Ni 1 *x-áʔβ-APPL*, 2 *t-áʔβ-APPL*, 3 *[j]i-APPL*, 1+2 *fn-áʔβ-APPL*, 1IRR *j-i-APPL*, 3IRR *n-áʔβ-APPL* (Fabre 2014: 146; Seelwische 2016: 46) • PCh 1+2 **ʔáw- ~ *ʔáw->* Ijw *ʔáw<ak>*, IRR *ʔíw<ek>*; I'w 1+2 *aw-áh*; Mj 1+2 *ʔáw-ah* (Carol 2014b; Drayson 2009: 160; Gerzenstein 1983: 103; Carol 2018)

[1] This is a suppletive allomorph of the root **-é- / *[j]í-*. Its distribution in Chorote (first person inclusive only) appears to be the original one, whereas in Maká and Nivaçle it replaced the original allomorph **-é-* throughout the paradigm.

**n-áχ* 'to end up'

Mk *n-aχ* (Gerzenstein 1999: 128) • Ni *n-áχ* (Seelwische 2016: 199) • PCh **<n>óhw-APPL* > Ijw *<n>óhw-iʔ* 'to be empty, to dry out', *<n>óhw-e* 'to gather', *<n>óʔw-eʔ* 'to end up'; I'w *<n>óf^w-ik*; Mj *<n>óhw-ijʔ* 'to end up', *<n>óhw-e* 'to

be ready’, <n>*śh?w-e?* ‘to melt’ (Carol 2014a: 85; Drayson 2009: 141; Gerzenstein 1983: 151; Carol 2018) • PW *<n>*ox^w* > LB <n>*uf^w*; Vej <n>*oh*; *Wk <n>*ox^w* (Nercesian 2014: 272, 357; Viñas Urquiza 1974: 68; Claesson 2016: 274)

*[j]ǎn ‘to put’

Mk [j]en-APPL (Gerzenstein 1999: 153–154) • Ni [j]an (Seelwische 2016: 105) • PCh *[j]én > Ijw [j]ín-APPL / -én-APPL; I’w -én-APPL, -án; Mj [j]ín / -én ~ -áin ~ -áin [1] (Drayson 2009: 159; Gerzenstein 1983: 126–127, 216; Carol 2018) • PW *[j]én ‘to put a snare’ > LB [j]en ‘to fish’; *Wk [j]éŋ (Nercesian 2014: 226; Claesson 2016: 532)

[1] In the Jlimnájnas subdialect of Manjui, [aj] ~ [æj] are allophones of /e/ before a sonorant. Obviously related to Proto-Guaicuruan *-a(?)n ‘to put’ (Viegas Barros 2013b, #49; cf. Viegas Barros 2013a: 304).

Viegas Barros 2013a: 304 (*-an)

*-ǎφ, *-φǎ-ts ‘wing’

Mk 3 *t-ef*, *te-fe-ts* (Gerzenstein 1999: 249) • Ni *-aφ*, <a>*φa-s* ‘wing, feather’ (Seelwische 2016: 39, 162) • PCh *-*hw<és>* (*-is) [1] > Ijw *-hwés (-is)*; I’w *-f^wés (-is)*; Mj *-hwés* (Drayson 2009: 120; Gerzenstein 1983: 129; Carol 2018) • PW *-*t-ex^w* (*-ís) [2 3] > LB *-t-ef^w* (-is); Vej *-h^w<is>* (-eł) [1]; *Wk *-t-ex^w* (-ís) (Braunstein 2009: 50; Viñas Urquiza 1974: 59; Gutiérrez & Osornio 2015: 60; Claesson 2016: 73, 235)

[1] In Chorote and Vejoz, the plural form of PM has been reanalyzed as a singular one, with the erstwhile plural suffix being reinterpreted as a part of the root.

[2] The plural suffix *-ís*, found in Wichí, is non-etymological: in all other languages, its vowel is a copy of the root vowel.

[3] Lunt (2016: 56, 58) documents the form *-t-ah^w* (-is) alongside *-t-eh^w* (-is), but does not indicate whether it is representative of Vejoz or Guisnay. If it turns out to be a Guisnay form, it could be a Nivaçle borrowing.

Possibly related to Proto-Guaicuruan *-a[?]*wá* ‘wing’ (Viegas Barros 2013b, #182; cf. Viegas Barros 2013a: 309).

Najlis 1984: 27 (**hlahw*); Viegas Barros 2013a: 309 (**t-ah^w*)

*-ǎ[?]j, *-ǎj-its ‘yica bag’

Ni *-a[?]j*, *-aj-is* (Seelwische 2016: 35) • PCh *-*éj?* (*-is) > Ijw *-é?*; I’w *-éj (-is)*; Mj *-éj?* (-is) (Drayson 2009: 131; Gerzenstein 1983: 125; Carol 2018) • PW *-*t-éj* (*-is) > LB *-t-éj*; *Wk *-t-éj?* (-is) (Nercesian 2014: 174; Claesson 2016: 74)

Fabre (2014: 306) notes the similarity with the Enlhet–Enenlhet term for ‘yica bag’: Enlhet *a:jen[?]*, Enenlhet–Toba *ajen[?]*, Enxet *ajen* (Unruh & Kalisch 1997: 12; Unruh et al. 2003: 304; Elliott 2021: 704).

Fabre 2014: 306

***-e, *-é-l ‘thorn’**

Mk 3 *t-i?*, <*t>i?* [1] (Gerzenstein 1999: 341) • Ni *-e?* (*-k*) (Seelwische 2016: 123, 355) • PCh 3 **hl-é?* (**-l*) > Ijw 3PL *hl-é-ʔ* [2]; Mj 3 *hl-é?* (*-l*) (Drayson et al. 2000: 74; Carol 2018) • PW **-t-e* > (?) LB *-t-e* ‘fishbone’ [3], ʼWk 3 *t-e?*, *t-é-ç* [4] (Nercesian 2014: 170; Claesson 2016: 235)

[1] The origin of the variant *ti?* in Maká is unclear. The alternation *t-/t-* occurs at the left boundary of the stem in multiple Maká verbs of the so-called 7th conjugation, but in that case it seems to continue PM **t-*.

[2] Drayson (2009: 130) documents *hléʔ* instead, which could be a mistranscription.

[3] LB *t-e* is attested only in the example ʼ*wahat te* ‘fishbone’ (Nercesian 2014: 170). Despite the semantic divergence, it likely belongs to the cognate set under consideration; note that in Spanish both meanings (‘thorn’ and ‘fishbone’) are colexified as *espina*, which could also be the case in Lower Bermejeño.

[4] The plural suffix attested in ʼWeenhayek does not correspond to what is found in Nivaçle and Manjui.

Obviously related to Proto-Guaicuruan **-<ʔeʔl>é* ‘thorn’, with a fossilized third-person prefix (Viegas Barros 2013b, #671).

***-é-APPL, 3/1IRR **[j]i-APPL* ‘to be’ [1]**

Mk 3 *i<ʔw>-APPL* [2] (Gerzenstein 1994: 92; Gerzenstein 1999: 359) • Ni 3 *[j]i-APPL*, 1IRR *j-i-APPL* (Fabre 2014: 146; Seelwische 2016: 46) • PCh 1 **ʔa-ʔé<j>ʔ*, 2 **hl-é<j>ʔ*, 3 **[j]i?*, 1IRR **j-é?*, 2IRR **ʔa-ʔé<j>ʔ*, 3IRR **n-é<j>ʔ* [3] > Ijw 1 *ʔá?* [1], 2 *hl-é?*, 3 *j-i?* [4], 1IRR *j-i?*, 2IRR *∅-ʔá?*, 3IRR *n-é?* ~ *ʔiné?*; Iʼw 1 *∅-éj*, 2 *hl-éj*, 3 *j-i*; Mj 1 *ʔa-ʔéj?*, 2 *hl-éj?*, 3 *[j]i?*, 1IRR *j-i?*, 2IRR *ʔa-ʔéj?*, 3IRR *n-éj?* (Carol 2014b; Drayson 2009: 160; Gerzenstein 1983: 103; Carol 2018) • PW 2 **t-é-APPL*, 3 **ʔi-APPL*, 3IRR **n-é-APPL* > LB 2 *t-é-APPL*, 3 *ʔi-APPL*; Vej 3 *ʔi-*, ʼWk 2 *t-é-APPL*, 3 *ʔi-APPL*, 3IRR *n-é-APPL* (Nercesian 2014: 226, 276; Viñas Urquiza 1974: 60; Claesson 2016: 21–22)

[1] In Maká, Nivaçle, and (in the first person inclusive) in Chorote, this root alternates with its suppletive allomorph **-áʔw-*, which has replaced **-é(j)-* in the former two languages in the entire paradigm.

[2] The element *-ʔw-* in Maká is taken through intraparadigmatic analogy from the suppletive allomorph *-aʔw-*. The preglottalization is attested in the New Testament (e.g. Mark 1:30).

[3] The allomorph **-éj* (instead of the expected ***-é*) is seen in Chorote first- and second-person realis as well as in second- and third-person irrealis.

[4] For some speakers of Iyojwaʼaja, 3 *[j]i?* behaves as /*jé*/, and for others as /*jéj*/. Both representations are unexpected.

***-éj (*-its) ‘name’**

Mk *-ij* (*-its*) (Gerzenstein 1999: 190) • Ni *-ej* (*-is*) (Seelwische 2016: 345) • PCh **-éj?* (**-is*) > Ijw *-é?* (*-jis*); Iʼw *-éj* [1]; Mj *-éj?* (*-is*) (Carol 2014a: 88; Drayson

2009: 131; Gerzenstein 1983: 125; Carol 2018) • PW **-t-éj* (**-is*) > LB *-t-éj* (*-is*); Vej *-t-éj*; 'Wk *-t-éjʔ* (*-is*) (Nercesian 2014: 166, 394; Viñas Urquiza 1974: 66; Gutiérrez & Osornio 2015: 66; Fernández Garay 2006–2007: 220; Claesson 2016: 74)

[1] The absence of a final *ʔ* in Gerzenstein's (1983) data of Iyo'awujwa' must be a mistranscription.

[2] Likely related to Proto-Guaicuruan **-ej* 'to name, to call' (Viegas Barros 2013b, #197).

***[j]ékphaʔx [1] 'to bite'**

Mk *[j]ikfeʔx* [1] (Gerzenstein 1999: 195) • PCh **[j]ókwah* [2] > Ijw *[j]ókʰe*; I'w *-óka*; Mj *[j]óka* (Drayson 2009: 161; Gerzenstein 1983: 152; Carol 2018) • PW **[j]ókʷaχ* [2] > LB *[j]ukʷaχ*; Vej *[j]okʷah*; 'Wk *[j]ókax* (Nercesian 2014: 148; Viñas Urquiza 1974: 84; Claesson 2016: 550)

[1] The preglottalized coda in PM is reconstructed based on the Maká reflex, as attested in the New Testament (e.g. Revelations 16:10).

[2] PM **e* was apparently rounded to **o* in PCh/PW before a **kφ* > PCh/PW **kʷ*. It may have been a regular sound change.

[3] Likely related to Proto-Guaicuruan **-ewak* 'to bite' (Viegas Barros 2013b, #240).

***-φájiʔx 'right (side)'**

Mk *-fejiʔx* [1], *-fejix-ets* 'left, left hand' (Gerzenstein 1999: 174) • Ni *-φajiʔf*, *-φajif-ik* (Seelwische 2016: 131) • PCh **-hwíjah* [2] > Ijw *-hwéje*; I'w *-fʷéje* (*-j*) ~ *-fʷéji*; Mj *-hwíji* (Drayson 2009: 120; Gerzenstein 1983: 129, 194; Carol 2018)

[1] The preglottalized coda in Maká is attested in the New Testament (e.g. Mark 15:27).

[2] Chorote shows an irregular metathesis.

Possibly related to Proto-Qom **-ojik* 'right' (Viegas Barros 2013a: 309).

Viegas Barros 2002: 143 (**-xʷejix*); Viegas Barros 2013a: 309 (**-hʷejih*) 'left/right'

***φajXoʔ, *φajXó-l / *-φájXoʔ (*-l) 'charcoal, ember'**

Ni *φajxoʔ* / *-φajxoʔ* (*-k*) (Seelwische 2016: 129) • PCh **hwa(h)jǒ-keʔ* [1] > I'w *fʷajǒ-kiʔ*, Mj *hwajǒ-kiʔ* [1] (Gerzenstein 1983: 128; Hunt 1994) • PW **xʷijhoʔ*, **xʷijhó-lʰ* / **-xʷijho* (**-lʰ*) [2] > LB *fʷiçuʔ* (*-t*) [3]; Vej *hʷiǰno* (*-t*) [4]; 'Wk *xʷiçoʔ*, *xʷiçó-t* / *-xʷiçoʔ* (*-t*) (Nercesian 2014: 53; Gutiérrez & Osornio 2015: 48; Claesson 2016: 61, 173)

[1] The Iyo'awujwa' and Manjui reflex has *-j-* instead of the expected **-hj-*. It is unclear whether the irregular loss of **h* occurred in Proto-Chorote or in Proto-Iyo'awujwa'-Manjui, as no cognates in Iyojwa'aja' are known.

[2] The vowel raising **a* > **i* in Wichí is not known to be regular.

[3] The Lower Bermejeño Wichí form is attested as *hʷiǰno* in Braunstein (2009: 43), with *o* (rather than the expected *u*) corresponding to PW **o*. It is possible that LB *u* is pronounced as a high-mid vowel by some speakers in Bazán.

[4] The Vejoz form is mistranscribed as *h^wino* in Viñas Urquiza (1974: 59).

Najlis 1984: 10, 32 (**hwajhnó*)

***-*φá-ʔmat* [1] ‘disease’**

Mk *<eq>fe-ʔmet* [2] (Gerzenstein 1999: 157) • Ni *-*φa-ʔmat** (Seelwische 2016: 130) • PCh **-hwá<ʔmat>* > Mj *-hwáʔmat* ~ *-hwóʔmat* (-es) [3] (Carol 2018)

[1] Contains the PM suffix **-ʔmat* ‘negative quality, physical defect’.

[2] The Maká reflex contains an unidentified element *eq-*. The preglottalized coda is attested in the New Testament (e.g. Revelations 8:12).

[3] The variant *-hwó-ʔmat*, attested in Manjui, is irregular.

***-*φapá(?)* ‘shoulder’, *-*φapá-ke?* (*-*j^h*) ‘shoulder blade’**

Ni *-*φápá-ke** (-*j*) (Seelwische 2016: 136) • PCh **-hwopó?*; **-hwopó-ke?* (*-*j^h*) > Ijw *-hwópo* (-*?*) ‘upper arm’; Iʷw *-f^wópo-ki?* ‘armpit’; Mj *-hwopó-ki?* (-*j*) (Drayson 2009: 120; Gerzenstein 1983: 130; Carol 2018) • PW **-x^wápo* ‘shoulder’ > LB PL *-*wapu-t** [1]; Vej *-h^wap^(h)o* (-*t*) [2]; ʷk *-x^wápo?* (-*t*) (Nercesian 2014: 249; Viñas Urquiza 1974: 58; Gutiérrez & Osornio 2015: 60; Claesson 2016: 60)

[1] Lower Bermejeño *w*, as documented by Nercesian (2014), is entirely unexpected. The expected reflex, *-f^wapu?* (-*t*), is attested by Braunstein (2009: 43).

[2] The non-etymological aspiration in the Vejoz reflex is attested by Gutiérrez & Osornio (2015), but not by Viñas Urquiza (1974).

****φaʔt* ~ **φáʔt* ‘fire’**

Mk *feʔt*, *fet-*ej** (Gerzenstein 1999: 173; Braunstein 1987: 199) • PCh **hwát* > Ijw *hwát* (Drayson 2009: 133)

****φátsu(?)*χ, **φátshu-ts* ‘centipede’**

Ni *φatsux*, *φatsxu-s* (Campbell et al. 2020: 51) • PCh **(h)wásuh*, **(h)wásu-s* [1] > Mj *wáxsu*, *wáxso* (-s) [1] (Carol 2018; Hunt 1994) • PW **x^wátsux^w* > ʷk *x^wátsux^w* (Claesson 2016: 164)

[1] It is unclear whether the irregular loss of *h* had already occurred in Proto-Chorote or in the independent history of Manjui.

Rejected: Najlis (1984: 26) lists Chorote *impesⁱuk* under this etymology, a form incompatible with **φátsuχ* for phonological reasons. Moreover, we have been unable to identify the dialect to which it belongs.

Najlis 1984: 26 (**pawtshu*)

***[*ji*]φáʔx ‘to cut down’**

Mk *-fex-inet-ki?* (-*j* ~ -*l*) ‘ax’ (Gerzenstein 1999: 174) • Ni [*ji*]φáʔf (Seelwische 2016: 127) • PCh **[ʔi]hwáh-APPL* > Ijw [*ʔi*]hwⁱéh-APPL / *-hwáh-APPL*; Iʷw

-f^wáh-aj; Mj [ʔi]hjéh-APPL / -hwáh-APPL (Drayson 2009: 99; Gerzenstein 1983: 129; Carol 2018) • PW *[ʔi]x^wáχ > LB [ʔi]f^waχ; Vej -h^wah-o ‘to nail down’; ’Wk [ʔi]x^wáx (Nercesian 2014: 351; Viñas Urquiza 1974: 58; Claesson 2016: 162)

Najlis 1984: 29 (1 *ahwa); Viegas Barros 2002: 143 (*-x^wex)

***φαλάj (fruit); *φαλάj-u^ʔk, *φαλάj-ku-j^h (tree) ‘white algarrobo (*Prosopis alba*)’**

Ni φαλάj; φαλάj-<j>uk, φαλάj-ku-j (Seelwische 2016: 127) • PCh *hwaʔájʔ; *hwaʔáj-uk, *hwaʔáj-ku-j^h > Ijw hwaʔáʔ; hwaʔáj-uk, hwaʔá-tfu-^ʔl; I^w f^waáʔ (-j) [1]; f^waáj-uk, f^waáj-si-ʔ; Mj hwaʔájʔ; hwaʔáj-uk ~ -ik, hwaʔáj-fi-j (Drayson 2009: 133; Gerzenstein 1983: 128; Carol 2018) • PW *x^waʔáj^h [2], *x^waʔáj-uk^w, *x^waʔá-k^ʔu-j^h > LB f^waʔa (-j) [1]; f^waʔaj-ek^w, f^waʔa-tf-ej; Vej h^waʔaj; h^waʔaj-uk, h^waʔa-tfu-j [3]; ’Wk x^waʔáç; x^waʔáj-uk, x^waʔá-k^ʔu-ç (Nercesian 2014: 192, 212, 245; Viñas Urquiza 1974: 58; Gutiérrez & Osornio 2015: 17; Claesson 2016: 162)

[1] In Iyo’awujwa’ and Lower Bermejeño Wichí, the form with a final -j has been attested as a plural form. These two varieties must have innovated by back-deriving a j-less singular from a reflex of *φαʔáj. Note that at least in Lower Bermejeño Wichí the form f^waʔa-j is much more frequent than the singular f^waʔa (attested only in the compound f^waʔa muk ‘*Prosopis alba* flour’), and the derivation processes take the plural form f^waʔa-j as the base (Nercesian 2014: 196). LB f^waʔaj is also the only form attested in Spagarino (2008: 60).

[2] PW *-áj^h, reconstructed based on the ’Weenhayek reflex with -ç, does not correspond to PCh *-ájʔ (underlying: */-áj/). The root must have been remodeled based on the plural suffix *-j^h.

[3] In Vejoz, Gutiérrez & Osornio (2015: 17) document an irregular variant h^waʔatf-uk alongside h^waʔaj-uk.

Viegas Barros (2013a: 300) notes the similarity with Lule waja ‘green and black algarrobo’ and Proto-Guaicuruan *wa^ʔjek (Viegas Barros 2013b, #619) > Mbayá <guayegi> ‘jasper-colored algarroba’, Abipón oai-k ‘*Prosopis alba*’ (Najlis 1966: 110), which is attributed to lexical diffusion. Najlis 1984: 12, 17, 27, 39, 46 (*hwâ(-)á (fruit); *hwâajuk (tree); *hwajcat (grove)); Campbell & Grondona 2007: 19; Gutiérrez 2015b: 77

***[ji]φál ‘to tell’**

Mk n(i)-fel-i^ʔm (Gerzenstein 1999: 172) • Ni n(i)-φak / n(i)-φakl̃- (Seelwische 2016: 189) • PCh *[ʔi]hwél > Ijw [ʔi]hwí^ʔl / -hwé^ʔl; I^w [i]híl-am / -f^wé(h)l-am; Mj [ʔi]hjíl / -hwél (Drayson 2009: 100; Gerzenstein 1983: 44, 130, 185; Carol 2018) • PW *[ʔi]x^wél^h / *[ʔi]x^wél- > LB [ʔi]f^weł / [ʔi]f^wel- / [ʔi]f^weŋ-; Vej -h^wen [2]; ’Wk [ʔi]x^wéł (Nercesian 2014: 150, 184, 259; Viñas Urquiza 1974: 59; Claesson 2016: 167)

[1] The preglottalized coda in Maká is attested in the New Testament (e.g. John 17:8).

[2] The Vejoz reflex attested in Viñas Urquiza (1974: 58) is not known to be regular.

***-*φálits* ‘sister-in-law; daughter-in-law’**

Mk *-felits*, *-feltsi-ʔ* ‘daughter-in-law; brother-in-law’s wife’ (Gerzenstein 1999: 172) • Ni *-φaklits<ʔa>* (-k) ‘sister-in-law’ (Seelwische 2016: 128) • PCh **-hwélis*, **-hwélsV-wot* ‘daughter-in-law’ > Ijw *-hwélis*, *-hwélse* ~ *-hwélse-wot*; I’w *-f^wéles*; Mj *-hwéles*, *-hwélsa-wot* (Drayson 2009: 120; Gerzenstein 1983: 129; Carol 2018)

***-*φálʔu?* (*-ts) ‘son-in-law; brother-in-law’**

Mk *-felu?* (-ts) ‘son-in-law; sister-in-law’s husband’ (Gerzenstein 1999: 172) • Ni *-φaklʔu* (-s) ‘brother-in-law’ (Seelwische 2016: 128) • PCh **-hwílu?* [?] **-hwélu?* (*-s) [1] ‘son-in-law’ > Ijw *-hwélʔu?* (-s); I’w *-f^wélu?* (-s); Mj *-hwílʔu?* ~ *hwéilʔu?* (-s) (Drayson 2009: 120; Gerzenstein 1983: 129; Carol 2018)

[1] PCh **i* (whose reconstruction is supported by the Iyojwa’aja’ and Manjui cognates) is not the expected reflex of PM **ǎ*. By contrast, Iyo’awujwa’ points to PCh **é* (as shown by the absence of palatalization in *l*).

***-*φät* ~ *-*φäʔt* [1] ‘belt’**

Mk (-) *fet<i(ʔ)ʔ>*, *fet<iʔ>-its* ‘men’s belt or skirt made of feathers worn at festivals’ [2] (Gerzenstein 1999: 174) • Ni *-<nuk>φat* (-es) ‘belt, sash’ [3] (Campbell et al. 2020: 95) • PCh **-hwét* > Mj *-hwét*, *-hwet-ájh* (Carol 2018)

[1] The vowel is reconstructed as unaccented based on the plural form attested in Manjui. It is unclear whether the coda should be reconstructed as preglottalized (Ni *-nukφat* does not show any traces of preglottalization, but this could possibly be the case due to deglottalization in unaccented syllables).

[2] We have no explanation for the element *-iʔ* or *-iʔʔ* in Maká (the term is not attested in our sources that distinguish between plain and preglottalized stops).

[3] We have no explanation for the element *-nuk-* in Nivaçle.

****φäʔx* ~ **φáʔx* ‘field’**

Ni *φaʔf*, *φaf-ik* ‘field, lowland’ (Seelwische 2016: 127) • PCh **hwéh* > I’w *f^wéh*; Mj *hwéh* (Gerzenstein 1983: 129; Carol 2018)

Najlis 1984: 29 (**hwehn*)

***[*ji*] *φáʔjá* [?] ~ **φäʔjá* ‘to fly’**

Ni [*ji*] *φáʔjá* (Seelwische 2016: 136) • PCh **[ʔi]hwéʔjáʔ* > Ijw [*ʔi*] *hwíʔjaʔ* / *-hwéʔjaʔ*; I’w *-f^wéjeʔ*; Mj [*ʔi*] *hjíʔjeʔ* / *-hwéʔjeʔ* (Drayson 2009: 100; Gerzenstein 1983: 129; Carol 2018) • PW **x^weʔjá* [?] **w-* [?] **-i-* [1] > LB *wiʔjo*; Vej *-h^wija*; Wk *weʔjáʔ* (Nercesian 2014: 258; Viñas Urquiza 1974: 59; Claesson 2016: 481)

[1] The correspondences between the Wichí varieties are entirely irregular. Only Vejoz points to PW $*x^w$ (which matches the evidence from Chorote and Nivačle), while other varieties point to PW $*w$. Only 'Weenhayek and the variety of Misión Santa María (*weja?* in Spinelli 2007) point to PW $*-e-$ (which matches the evidence from Chorote), while other varieties point to PW $*-i-$.

Possibly related to Proto-Guaicuruan $*-a(^{\circ})jo$ 'to fly' (Viegas Barros 2013b, #11; cf. Viegas Barros 2013a: 304), though a better comparandum for the Guaicuruan form is Mk *n-a'ja?* 'to fly' (Gerzenstein 1999: 138).

Viegas Barros 2013a: 304 ($*(h^w)ej\lambda?$)

$*(-)\phi e\acute{t}ek$ (~ $*-e\acute{t}e-$ ~ $*-e\acute{t}é-$) [1] 'mortar'

Mk $(-)\phi i\acute{t}ik$ ($-i$) 'drum' (Gerzenstein 1999: 175) • Ni $-\phi e\acute{t}etf$, $-\phi e\acute{t}tse-j$ (Seelwische 2016: 132) • PCh $*(-)hwVhlek$ [2] > Ijw $(-)(h)w\acute{a}nhlek$, $(-)(h)w\acute{a}nhle-?e$; I'w *wihlik* ($-is$); Mj $(h)wihlik$ (*wihlik-is* ~ *wi\acute{k}-ijh*) (Carol 2014a: 78; Drayson 2009: 133; Gerzenstein 1983: 170; Carol 2018) • PW $*x^w\acute{e}teq$ > LB $f^w\acute{e}teq$; Vej $h^w\acute{e}tek(-t\acute{f}o)$; 'Wk $x^w\acute{e}tek$ (Nercesian 2014: 300; Viñas Urquiza 1974: 59; Gutiérrez & Osornio 2015: 48; Fernández Garay 2006–2007: 215; Claesson 2016: 167)

[1] The prosodic properties of the root are difficult to reconstruct: Iyo'awujwa' and Manjui point to $*\phi i\acute{t}ek$ or $*\phi i\acute{t}ék$, 'Weenhayek to $*\phi e\acute{t}ek$, and Iyojwa'aja' to $*(-)\phi\acute{a}ntek$ or $*(-)\phi\acute{a}nték$ (see below on the irregular segmental correspondences).

[2] Each Chorote variety presents some irregularity in the phonological development of this root. In Iyojwa'aja', one finds the vowel *a* in the first syllable followed by a nasal consonant, with no parallels either in other Chorote varieties or in other Mataguyan languages; the expected outcome would be $*hwéhlek$. In Iyo'awujwa' and Manjui, the first syllable contains the unexpected vowel *i*; furthermore, the initial consonant is *w* (rather than $*hw$) in Iyo'awujwa' (and optionally in Iyojwa'aja' and Manjui).

$*(-)\phi e\acute{t}\acute{a}^{\circ}ts$ 'root'

Mk *fitets* ($-its$) '*Dorstenia* sp.', 3 *te-fitets* [1] ($-its$) 'root' (Gerzenstein 1999: 178, 249) • Ni $-\phi eta^{\circ}s$, $-\phi etats-ij$ [2] (Seelwische 2016: 132) • PCh $*-hw\acute{e}tus$ [3] > Ijw $-hw\acute{e}tis$, $-hw\acute{e}tis^i-u^{\circ}l$; I'w $f^w\acute{e}tis$ ($-i\acute{?}$); Mj $-hw\acute{e}tus$ ($-ej$ ~ $-uj$) (Drayson 2009: 120; Gerzenstein 1983: 129; Carol 2018) • PW $*(-)x^w\acute{e}tes$, $*x^w\acute{e}tes-el^h$ / $*-x^w\acute{e}ts-il^h$ [4] > LB PL $-f^w\acute{e}ts-il$; Vej $-h^w\acute{e}tes$; 'Wk $(-)x^w\acute{e}tes$, $x^w\acute{e}tes-e\acute{t}$ / $-x^w\acute{e}ts-i\acute{t}$ (Nercesian 2014: 324; Viñas Urquiza 1974: 59; Claesson 2016: 61, 168)

[1] The Maká reflex unexpectedly lacks preglottalization in the coda in the singular form, as attested in the New Testament (Romans 11:18; Luke 3:9).

[2] Nivačle also has *phet\acute{a}*, *phetx-\acute{a}s* 'peel of a root' (Seelwische 2016: 132), which is obviously related (cf. also $-l\acute{a}x$ ($-is$) 'skin, bark'), but the derivational relation is obscure.

10 Dictionary

[3] PM *ä has undergone irregular change in Chorote and irregular syncope in the Wichí possessed plural form.

[4] The vowel syncope in the Wichí plural is irregular.

Possibly related to Proto-Guaicuruan *-pat'ád 'trunk, root' (Viegas Barros 2013b, #479). Viegas Barros (2013a: 313) notes the similarity of the PM form with Kadiwéu -itodi 'root', which is likely spurious.

Najlis 1984: 9, 19, 43 (*hwetets); Viegas Barros 2013a: 313 (*h^wetets)

*[jɨ]ɸi'j ~ *[jɨ]ɸi'j [1] 'not to be afraid'

Ni [jɨ]ɸi'j (Seelwische 2016: 133) • PCh *[ʔi]hwij? > Ijw [ʔi]hwij-e / -hwéj-e; I'w há f^wíj-in 'fearful'; Mj [ʔi]hjij? / -hwij? ~ -hwéi? (Drayson 2009: 100; Gerzenstein 1983: 172; Carol 2018) • PW *[ʔi]x^wíj-eh > 'Wk [ʔi]x^wíj-eh (Claesson 2016: 172)

[1] The prosodic properties of the root cannot be established because the 'Weenhayek cognate is not attested without applicative morphology (the form with an applicative suffix is not revealing because in trisyllabic words the vowel of the peninitial syllable is lengthened in any case).

*ɸi'jât 'cold weather, south wind'

Ni ɸi'jat (-is) 'south wind' (Seelwische 2016: 134) • PCh *hwi'jét 'ice, frost' > Ijw wi'jít; Mj hwi'jít (Drayson 2009: 157; Carol 2018) • PW *x^wi'jét (*-il^b) 'winter, cold weather' > LB x^wi'jét; Vej h^wi'jet (-il ~ -it) [1]; 'Wk x^wi'jét (-it) (Nercesian 2014: 200, 212; Gutiérrez & Osornio 2015: 43; Claesson 2016: 61, 168)

[1] Viñas Urquiza (1974: 59) mistranscribes this word (possibly the plural form) as h^wijet til.

*[jɨ]ɸi'k ~ *[jɨ]ɸi'k 'to hide'

Ni [jɨ]ɸi'tf (Seelwische 2016: 133) • PCh *[ʔi]hwík > Ijw [ʔi]hwík / -hwék 'to keep in secret', [ʔi]hwík-i / -hwék-i 'to hide'; Mj [ʔi]hjík / -hwík (Drayson 2009: 100; Carol 2018)

*ɸínä(?)χ 'crab'

Ni ɸinax, ɸinxa-s (Seelwische 2016: 133) • PCh *hwíneh > Ijw hwéni; Mj hwíni (Drayson 2009: 133; Carol 2018)

*ɸi's 'leech' [1]

Ni ɸi's, ɸis-ik (Seelwische 2016: 113) • PW *x^wis > 'Wk x^wis (Claesson 2016: 170)

Proto-Qom *pit 'leech' may have been borrowed from Mataguyan.

*** ϕ it'i(?) ~ * ϕ it'ih** 'dragonfly'

Ni *fit'i* (-k) (Seelwische 2016: 134) • PCh **hwí(n)t'i...* [1] > Ijw *hwént'i<je>* (-jis) [1] (Drayson 2009: 133) • PW **x^wit'i<s>* [2] > Vejoz or Guisnay *h^wit'i<s>* (Lunt 2016: 32)

[1] The Iyojwa'aja' reflex is quite irregular: it contains an unexpected nasal consonant and an unidentified element fossilized to the erstwhile root.

[2] The Wichí reflex includes a non-etymological element *s. In Nercesian (2021), an irregular dialectal form <fwich'is> is also documented, it is attributed to the Pilcomayeño variety (corresponding to our Guisnay).

Najlis 1984: 39 (**hwethne*)

*** ϕ kéna(°)χ** 'north wind, north'

Ni *ftfenax*, *ftfenaxa-s* (Seelwische 2016: 132) • PCh **hw²kénah* > Ijw/I'w *wikína* [1]; Mj *hwikína* (Carol 2014a: 74, fn. 1; Drayson 2009: 157; Gerzenstein 1983: 170; Carol 2018)

[1] Iyojwa'aja' and Iyo'awujwa' w- is not a regular reflex of PCh **hw-*.

Rejected: Najlis (1984: 11) compares Ni *ftfenax* with Chorote and Wichí words meaning 'mountain', which are derived from PM **tkénax* 'precipice; hill, mountain' in our proposal.

***- ϕ o(?) ~ *- ϕ ó(?)** 'foot' [1]

Mk *-fo<nxe?>* (-j) 'ankle' [2] (Gerzenstein 1999: 180) • Ni *- ϕ o?* (-k) 'foot', *-fo<²kílâ>* (-s) 'ankle bracelet with white feathers' [3], *-fo-xij* (-is) 'stirrup' (Seelwische 2016: 135)

[1] This root certainly reconstructs all the way to Proto-Mataguayan, since Chorote and Wichí reflect a likely derivative **- ϕ ólXaⁿ* 'ankle'.

[2] The formative *-nxe?* in Maká does not appear to be morphologically segmentable, but it is also found in *-wonxe?* 'neck' and other body-part terms.

[3] Ni *-fo²kílâ* includes a fossilized reflex of PM **-²lâ?* ~ **-²lâ?* 'adornment'.

***- ϕ qató (*-l)** 'elbow'

Ni *-(?V) ϕ kato* (-k) (Seelwische 2016: 131) • PCh **-qató?* (*-l) > Ijw *-kátó-ki?*, I'w *-kató?* ~ *-kató-ki?*, Mj *-kató?* (-l) (Carol 2014a: 76, 91, fn. 22; Drayson 2009: 121; Gerzenstein 1983: 137; Carol 2018) • PW **-qáto* (*-l^h) > LB *-qatu*; Vej *-kâto* [1]; 'Wk *-qáto* (-t) (Braunstein 2009: 47; Viñas Urquiza 1974: 62; Claesson 2016: 87)

[1] The vowel *â* in the Vejoz reflex is unexpected and could be a mistranscription on Viñas Urquiza's (1974) part.

Possibly related to Proto-Guaicuruan **-q'oté* 'elbow' (Viegas Barros 2013b, #542).

Najlis 1984: 10 (**qatôq*); Campbell & Grondona 2007: 15

****φtsána*(?)χ ‘*Baccharis* sp.’**

Ni *φtsána*x, *φtsána*-s (Seelwische 2016: 137) • PCh **sána*h > Ijw/Mj *sána* (Drayson 2009: 144; Carol 2018) • PW **x^witsána*χ > Vej *h^witsána*h, *h^witsána*-as [1] (Gutiérrez & Osornio 2015: 18)

[1] Viñas Urquiza (1974: 59) mistranscribes the root as *h^witsanah*.

Najlis 1984: 29 (**h^witsáhna*)

****φts-u*^ʔk, collective **φis-kat* [1] ‘*Copernicia alba* palm’**

Mk *fits-uk* [2], *fis-kw-i*; *fis-ket* (Gerzenstein 1999: 178) • Ni *φts-u*^ʔk; *φis-tfat*; stem used in derivatives: *φts-uk-i*- (Seelwische 2016: 133, 137–138) • PCh **hwis<úk>* [3] > Ijw/I^w (*h*)*wisⁱúk*; Mj (*h*)*wifúk* (-*ij*) [4] (Drayson 2009: 157; Gerzenstein 1983: 170; Scarpa 2010: 186; Carol 2018) • PW **x^wits<uk^w>* > LB *f^witsek^w* ‘*Ruprechtia triflora*’; Vej *h^witsuk* (-*łajis*) [5]; ^wWk *x^witsuk* (Spagarino 2008: 59; Braunstein 2009: 43; Viñas Urquiza 1974: 59; Gutiérrez & Osornio 2015: 17–18; Claesson 2016: 172)

[1] Based on the Nivaçle reflex, we reconstruct a non-productive alternation pattern, whereby the PM cluster **φts-* before vowels would have alternated with **φis-* before consonants (with an irregular deaffrication of **ts* and epenthesis of **i*, likely motivated by the necessity to avoid a tautosyllabic cluster **φtsk*). We surmise that the epenthetic **i* has been analogically extended to the prevocalic allomorph in all languages except Nivaçle.

[2] The Maká reflex unexpectedly lacks preglottalization in the coda in the singular form, as attested in the New Testament (Revelations 7:9).

[3] In Chorote, PM **φ* in this word is irregularly reflected as *w* alongside the expected reflex *hw*. It is unclear why the vowel **i* rather than **ə* was epenthesized.

[4] The plural form attested in Manjui is innovative.

[5] The absence of labialization in the reflex of PW **-k^w* in Vejoz is unexpected.

Viegas Barros (2013a: 310) notes the similarity with Proto-Guaicuruan **tsjáwa* ‘*Copernicia alba* palm’ (VB 2013b, #584), which could be spurious.

Najlis 1984: 16 (**h^witsúk*); Campbell & Grondona 2007: 15 (“diffused?”); Viegas Barros 2013a: 310 (**h^wits-uk*)

***[*ji*]φúju ‘to blow’**

Mk [*ji*]fuju (Gerzenstein 1999: 183) • Ni [*ji*]φuju ‘to blow, to play a woodwind instrument’ (Seelwische 2016: 138) • PCh **[ʔi]hwúju-APPL* > Mj [*ʔi*]hjúji-*i*^ʔm ~ [*ʔi*]hjúju-*u*^ʔm / -*hwúji-i*^ʔm ~ -*hwúju-u*^ʔm ‘to blow at’, [*ʔi*]hjúji-*ʔi*? ~ [*ti*]hwúji-*ʔi*? ‘to blow’ (Carol 2018)

***[*ji*]φún ‘to be hesitant with, to respect’**

Ni [*ji*]φun-*a* ‘to be delicate with, to respect’ (Seelwische 2016: 138) • PW **[ʔi]x^wún* > Vejoz or Guisnay [*i*]h^wun ‘to be timid, to be lazy, not to feel like doing something’; ^wWk [*ʔi*]x^wún (Lunt 2016: 34; Claesson 2016: 177)

***- ϕu^t ~ *- $\phi \acute{u}^t$, *- $\phi t\acute{u}$ -ts [1] ‘flatulence’**

Mk *-ftu?*, *-ftu-ts* [2] (Gerzenstein 1999: 141) • Ni *- ϕu^t* , *- $\phi t\acute{u}$ -s* (Seelwische 2016: 138) • PCh **-hwút* > Ijw/Mj *-hwút* (Drayson 2009: 120; Carol 2018) • PW **[t]<’e>x^wtu-j* ~ **[t]<’e>x^wtú-j* ‘to fart’ > LB *[t]’ef^wte-j* (Nercesian & Amarilla 2021: 278)

[1] The plural form is reconstructed based on Maká and Nivačle; it is thus technically reconstructible only for Proto-Maká–Nivačle.

[2] The singular form in Maká has been reshaped based on the plural form. One would expect **- ϕu^t* , *ftu-ts*.

Viegas Barros (2013a: 310) notes the similarity with Proto-Guaicuruan **-wit’i* ‘flatulence, to fart’ (Viegas Barros 2013b, #632), which could be spurious.

Viegas Barros 2013a: 309 (**-eh^wutu?*)

***[*ji*] $\phi \chi \acute{a}n$ - ~ *- \acute{a} - ‘to kill a bird’**

Ni [*ji*] $\phi \chi \acute{a}n$ -APPL (Seelwische 2016: 39) • PCh **<?a>hwén-(n)ah* ‘bird’ [1] > Ijw *?ahwén-a*, *<?a>hwéhn-a-s*; I’w *a^fwén-a-ki (-ji)*; Mj *?ahwén-a*, *?ahwéhn-a-s* (Drayson 2009: 93; Gerzenstein 1983: 117; Carol 2018) • PW **<?a>x^wén-k^je* (**-j^b*) ‘bird’ [1] > LB *?a^fwen-tfe (-j)*; Vej *?ah^wen-tfe (-j)*; ’Wk *?ax^wén-k^je?* (*-ç*) (Nercesian 2014: 196, 253; Braunstein 2009: 37; Viñas Urquiza 1974: 50; Gutiérrez & Osornio 2015: 19; Claesson 2016: 10)

[1] In Chorote and Wichí, the original verb is not preserved, but the term for ‘bird’ appears to be its nominalization. The prefixed element **?a-* is of unclear origin.

***- $\phi \chi \acute{u}x$, *- $\phi \chi \acute{u}$ -ts ‘finger’**

Mk *-fux (-uts)* [1] (Gerzenstein 1999: 183) • Ni *- $\phi \chi ux$* , *- $\phi \chi u$ -s* ‘toe’ (Seelwische 2016: 135) • PCh **-hwu-ké?* > Ijw *-hwú-ki?* (*-’l*); I’w *-f^wi-ki?*, *-ji* ‘toe’ [2] (Drayson 2009: 120; Gerzenstein 1983: 130) • PW **-x^wúx^w*, **-x^wú-s* > LB *-f^wef^w*, *-f^we-s*; Vej *-h^wuh*, *-h^wu-s* [3]; ’Wk *-x^wúx^w* (*-x^wú-s*) (Nercesian 2014: 191; Viñas Urquiza 1974: 58; Gutiérrez & Osornio 2015: 32, 60; Claesson 2016: 62)

[1] The Maká plural form is non-etymological.

[2] The vowel *i* as a reflex of PCh **u* in Gerzenstein’s (1983) data of Iyo’awujwa’ is irregular; alternatively, it could be a mistranscription.

[3] The singular form of the Vejoz reflex irregularly lacks labialization in the final consonant. It is mistranscribed as *-huh* in Viñas Urquiza (1974: 58).

Najlis 1984: 15 (PL **h^wuq-s*)

***(-) ϕ ’elxVtsé χ , *(-) ϕ ’elxVtsé-ts [1] ‘poor’**

Mk *-f’ilxetsa χ* , *-f’ilxetsi-ts* ‘poor’; *-f’ilxetsi-?* ‘poverty’ (Gerzenstein 1999: 183) • PCh **p’ilusáh*, **p’ihlusé-s* [2 3] > Ijw *p’il’úxse* ~ *p’élis^je*, *p’ihl’úxsi-s*; I’w *-pelíxsa*; Mj *p’ilisáh*, *p’ilisé-s* [2] (Carol 2014b; Carol 2014a: 92; Drayson 2009:

144; Gerzenstein 1983: 155; Carol 2018) • PW **p'elitsax*, **p'elitse-s* [2] > LB *p'alitsax* [3]; Vej *p'elitsah*; 'Wk *p'alitsax*, *p'alitse-s* [4] (Braunstein 2009: 54; Viñas Urquiza 1974: 71; Gutiérrez & Osornio 2015: 52; Claesson 2016: 297)

[1] Regarding the vowel of the medial syllable, Maká points to PM **a* or **ä*, Chorote to **u*, and Wichí to **i*.

[2] PM **x* is inexplicably lost in the Chorote singular form (in Manjui also in the plural) as well as in Wichí.

[3] The Proto-Chorote stress is unexpectedly retracted to the peninitial syllable in Iyo'awujwa', and to the initial syllable in the Iyojwa'aja' variant *p'élis'e*.

[4] PW **e* is regularly reflected as *e* in Vejoz, whereas Lower Bermejeño and 'Weenhayek show the irregular reflex *a*.

***(-)háqke? (*-j^h) 'well'**

Mk *haqqi?* (-l) [1] 'river' (Gerzenstein 1999: 186) • Ni *-xáke* (-j) 'dry well' (Seelwische 2016: 153) • PCh **-hááke?* 'artificial well, ditch' > Ijw *-háki?*; I'w *-háki?* (-ji); Mj *-háaki?* (-j) 'artificial well, ditch' (Drayson 2009: 129; Gerzenstein 1983: 173; Carol 2018)

[1] The plural form in Maká is non-etymological.

Najlis 1984: 14 (**hnawq*)

***-í(t)s'í(?) (*-l) 'resin, sap'**

Ni *-its'í* (-k) [1] 'resin, earwax' (Seelwische 2016: 142) • PCh 3 **hl-its'í?* (*-l) > Ijw *hl-éts'í* 'resin, sap, wax'; Mj 3 *hl-éits'e?* (-l) 'sap' [2] (Drayson 2009: 131; Carol 2018) • PW **-t-its'í* > LB *-t-its'í* 'wax'; 'Wk *-t-its'í?* 'resin, rubber' (Nercesian 2014: 267; Claesson 2016: 75, 236)

[1] Seelwische (2016: 142) actually attests *-iʔts'í*, where [ʔts'] is likely an allophone of /ts'/.

[2] Manjui *e* is not known to be a regular reflex of unstressed PCh **i*.

***-jáł 'breath'**

Ni *-jał* (-ij) (Seelwische 2016: 338) • PCh **-jáł* > Ijw *-jéł*; I'w *-jél*; Mj *-jéł* (Drayson 2009: 127; Gerzenstein 1983: 133; Carol 2018) • PW **-jáł* > LB/Vej *-jał*; 'Wk *-jáł* (-łajis) (Braunstein 2009: 60; Viñas Urquiza 1974: 83; Claesson 2016: 104)

Najlis 1984: 46 (**jahł*)

***[ji]já? 'to drink' [1]**

Mk *<i>ja?* (Gerzenstein 1999: 224) • Ni *[ji]já?* / *-(ʔi)já?* (Seelwische 2016: 387) • PCh **[ʔi]já?* 'to drink alcohol' [2] > Ijw *[ʔi]já?*; I'w *-jé* [3]; Mj *[ʔi]jé?* (Drayson 2009: 118; Gerzenstein 1983: 186; Carol 2018) • PW **[ʔi]já?* > LB *[ʔi]jo?* 'to drink water'; Vej *[hi]já* [4]; 'Wk *[ʔi]já?* 'to drink alcohol' (Nercesian

2014: 241, 251; Braunstein 2009: 46; Gutiérrez & Osornio 2015: 41; Claesson 2016: 512)

[1] The underived verb is intransitive. Applicative derivations are used for expressing the ingested substance.

[2] The glottalization in PCh *ʔj appears to be irregular (the seemingly plain reflex in Iyo'awujwa' could be a mistranscription on Gerzenstein's part).

[3] The absence of a final ʔ in Gerzenstein's (1983) data of Iyo'awujwa' must be a mistranscription.

[4] In Viñas Urquiza (1974: 82), the root is mistranscribed as *-ja*.

Najlis 1984: 15 (2 **hl-jae*)

*-jáqsiʔ ~ *-jǎqsiʔ 'finger'

Mk *-jaqsiʔ* (-j) 'finger, claw, ring' (Gerzenstein 1999: 397) • PCh *-<ʔi>jási-keʔ ~ *-<ʔi>jǎsi-keʔ (*-j^h) [1] > I'w *-jési-kiʔ* (-ji); Mj *-(ʔi)jéxfi-kiʔ* (-jh) [1] (Gerzenstein 1983: 134; Carol 2018)

[1] We have no explanation for the element ʔi- in the Manjui third-person form (*t-ʔijéxfi-kiʔ*), which disappears in other inflected forms and lacks a counterpart in Maká.

Likely related to Proto-Guaicuruan *-a(ʔ)jaqatsʔV 'finger' (Viegas Barros 2013b, #9; cf. Viegas Barros 2013a: 308).

Viegas Barros 2013a: 308 (*-jaqsiʔ)

*(-)jǎja(ʔ) 'grandmother'

Ni *jaja* 'grandmother, old woman (possibly vocative)' (Campbell et al. 2020: 495) • PCh *(-)jéjaʔ > Mj *(-)jijeʔ* ~ *jijiʔ* (Carol 2018)

*jijáʔts 'dew'

Mk *ijeʔts* [1], *ijets-its* (Gerzenstein 1999: 225) • Ni *jijaʔs* (Seelwische 2016: 385) • PCh *ʔijés-tah > Ijw *jís-ta* [2]; I'w *-jís-ta* ~ *-jís-te* [2]; Mj <ajísta, ijísta> [2] (Drayson 2009: 160; Gerzenstein 1983: 33, 134; Hunt 1994) • PW *ʔijás > LB ʔijas; ʔWk ʔijás (-lis) (Nercesian 2014: 48; Claesson 2016: 43)

[1] The presence of a preglottalized coda in Maká is inferred based on the Nivačle cognate; the singular form is not attested in our sources that distinguish between plain and preglottalized stops.

[2] The root-initial vowel has suffered irregular change or loss in all Chorote varieties (only in Manjui has the expected form been attested alongside an innovative one).

Viegas Barros (2013a: 312) notes the similarity with Proto-Guaicuruan **ewi* 'dew' (Viegas Barros 2013b, #245), which could be spurious.

Viegas Barros 2013a: 312 (**ija-ts*)

*jiʔjǎʔX₁₂ 'jaguar'

Ni *jiʔjǎʔx*, *jijxǎ-s* (Seelwische 2016: 386; Campbell et al. 2020: 52) • PCh *ʔaʔjǎh (*-es) > I'w *ajéh* (-es); Mj *ʔaʔjéh*, *ʔaʔjé-es* (Gerzenstein 1983: 118; Carol

2018) • PW **haʔjâχ* > LB *haʔjoχ*; Vej *haʔjâh* (-*łajis*) [1]; ʼWk *haʔjâx*, *haʔjâ-s* (Nercesian 2014: 53; Gutiérrez & Osornio 2015: 20; Claesson 2016: 141)

[1] Viñas Urquiza (1974: 57) mistranscribes this word as *hajoh*.

Najlis 1984: 36, 41 (**jâq*); Campbell & Grondona 2007: 20

****jiʔlâ ~ jiʔlâʔ, *jiʔlâ-jʰ* [1] ‘tree’**

Ni *jiʔklâʔ*(-*j*) [2] (Campbell et al. 2020: 58) • PCh **ʔaʔlâʔ*(**-jʰ*) > Ijw *ʔaʔlâʔ*; Iʼw *alâʔ*(-*j*) [3]; Mj *ʔaʔlâʔ*(-*jʰ*) (Carol 2014a: 99; Drayson 2009: 95; Gerzenstein 1983: 119; Carol 2018) • PW **haʔlâ*, **haʔlâ-jʰ* > LB *haʔlo*, *haʔlo-j*; Vej *haʔlâ*, *haʔlâ-j* [4]; ʼWk *haʔlâʔ*, *haʔlâ-ç* (Nercesian 2014: 191; Gutiérrez & Osornio 2015: 18; Claesson 2016: 139)

[1] Nivačle points to PM **ʔaʔlâʔ*, Lower Bermejeño Wichí to **ʔaʔlâ*.

[2] Seelwische (2016: 379) documents *jeklâʔ*(-*j*) ‘wood, firewood’, which must be an irregular Shichaam Lhavos form. The basic term for ‘tree’ in that variety is *ʔaʔkxi-juk* (Seelwische 2016: 35), of unknown origin.

[3] The absence of preglottalization in Iʼw *-l-* in this word is probably a mistranscription on Gerzenstein’s (1983) part.

[4] Viñas Urquiza (1974: 56) mistranscribes the Vejoz reflex as *haʔla ~ hala*.

Hunt 1915: 239; Najlis 1984: 36 (**la*); Gutiérrez 2015b: 253

****jinâʔt, *jinâʔt-its* ‘water’**

Mk (Guentusé doculect) <enaat> [1] (Aguirre 1793) • Ni *jinâʔt*, *jinâʔt-is* / -*ʔβ-inâʔ*(-*is*) (Seelwische 2016: 361, 382) • PCh **ʔiʔnâʔ*(**-es*) [2] > Ijw *ʔiʔnâʔ*; Iʼw *ʔanâʔ* [3]; Mj *ʔaʔnâʔ*(-*es*) [3] (Carol 2014a: 99; Drayson 2009: 117; Gerzenstein 1983: 127; Carol 2018) • PW **ʔinâʔ*(**-es*) > LB *ʔinot*; ʼWk *ʔinâʔ*(-*es*) (Nercesian 2014: 150; Braunstein 2009: 45; Claesson 2016: 31)

[1] In modern Maká, this root has been replaced by *iweliʔ* ‘water’ (in earlier sources *ewaleʔ*; Hunt 1915: 243).

[2] The glottalization in PCh **ʔn* appears to be irregular (the seemingly plain reflex in Iyoʼawujwaʼ could be a mistranscription on Gerzenstein’s part). PM **ji* evolves to *ʔi* in Iyoʼajwaʼajaʼ, as if it were followed by a plain consonant, but to *ʔa* in Iyoʼawujwaʼ, as expected before an etymological glottalized consonant.

[3] The low vowel in the first syllable in Iyoʼawujwaʼ and Manjui could be due to the general dispreference for structures of the type *#ʔiCʼÁ...*, where *Cʼ* stands for a glottalized consonant and *Á* for a stressed low vowel (these sequences were eliminated in Chorote and Wichí by means of the sound change **ji- > *ʔi- > *ʔa-* before glottalized consonants followed by stressed vowels).

Najlis 1984: 10, 28, 32, 44 (**ihnâʔ*)

***{j/ʔ}is{a/á/e}ʔχ ~ *{j/ʔ}is{á/á/é}ʔχ ‘sand’**

Mk *isa*ʔχ [1], *isaχ-its* (Gerzenstein 1999: 207) • PCh **ʔisáh* ~ **ʔisáh* > Iʔw *isʔé*;
Mj *(ʔi)ʔéh* (Gerzenstein 1983: 132; Carol 2018)

[1] The preglottalized coda in the singular form in Maká is attested in the New Testament (Hebrews 11:12).

Viegas Barros 2002: 144 (**isAχ*)

***jitʔáʔ, *jitʔá-l ‘turkey vulture’**

Ni *jitʔáʔ* (-k) (Seelwische 2016: 384) • PCh **ʔatʔáʔ* (*-l) > Ijw *ʔatʔáʔ* (-ʔl) ‘black vulture’; Mj *ʔatʔáʔ* ‘turkey vulture; lesser yellow-headed vulture’ (Drayson 2009: 95; Carol 2018) • PW **hatʔá* > LB *hatʔo*; ʔWk *hatʔáʔ* (Spagarino et al. 2013 [2011]; Claesson 2016: 147)

***jitsuʔx ~ *jitsúʔx, *jitsx-ájʰ ‘male’**

Mk *ʔe-∅-tsuʔx* [1], *ʔe-∅-tsux-its* [2] (Gerzenstein 1999: 251) • Ni *jitsuʔx*, *jitsx-áj* ‘male, man’, *-ka-β-tsx*, *-ka-βi-tsx-áj* ‘male relative’ (Campbell et al. 2020: 101, 103) • PW **tsh<á><wet>*, **tsh<á><t>-ájʰ* ‘animal’ [3] > LB *tsʰowet*, *tsʰot-oj*; ʔWk *ʔitsʰáwet*, *ʔitsʰát-áč* (Nercesian 2014: 193; Claesson 2016: 41)

[1] The presence of a preglottalized coda in Maká is inferred based on the Nivačle cognate; the singular form is not attested in our sources that distinguish between plain and preglottalized stops. We assume this form contains a zero allomorph of the relationalizing prefix -ʔw-, parallel to *ʔe-ʔw-efu* ‘female’; /ʔw/ is deleted before a consonant.

[2] The plural form in Maká is non-etymological.

[3] The identity of the element *-wet* / *-t* in Wichí is unclear. It has been fossilized to what looks like an innovative vocalic stem **jitsx<á>-* > **tsʰ<á>-*.

***jixá ~ *jixáʔ ~ *jixáʔ ~ *jixáʔ [1] ‘true’**

Mk *ixa* (Gerzenstein 1999: 219) • Ni *jixáʔ* (Seelwische 2016: 381) • PCh **ʔihá<wet>* [2] > Ijw *ʔihját*; Iʔw *ihjét*; Mj *ʔihjéwet-e* (Carol 2014a: 87; Drayson 2009: 96; Gerzenstein 1983: 132; Carol 2018)

[1] Maká points to the absence of a word-final *ʔ in PM, Nivačle to its presence.

[2] We have no explanation for the element **(we)t* in Chorote.

Viegas Barros 2002: 143 (**ixA*)

***-juʔs / *jijuʔs ‘wax’**

Ni *-juʔs*, *-jus-ik* / *jijuʔs* (Seelwische 2016: 69, 391) • PCh **ʔijús* > Iʔw *ijús* (-is) (Gerzenstein 1983: 130)

***-ka, *-ká-l ‘tool; person with skills for’**

Ni *-tʃaʔ* (-k) (Seelwische 2016: 94) • PCh **-káʔ* (*-l) > Ijw *-kʔéʔ* (-ʔl); Iʔw *-kʔéʔ* (-l); Mj *-kʔéʔ* (-ʔ) (Carol 2014a: 76; Drayson 2009: 122; Gerzenstein 1983: 117; Carol

2018) • PW **-k^ja*, **-k^já-l^h* > LB *-tfa* (-t); Vej *-tfa*; 'Wk *-k^ja?*, *-k^já-t* (Nercesian 2014: 150, 201; Viñas Urquiza 1974: 51; Claesson 2016: 64)

***[ji]ka'χ ~ *[ji]ká'χ [1] 'to take away'**

Mk *[j]<e>ka'χ* 'to take away', *[j]<e>-n-ka'χ* 'to bring' [2] (Gerzenstein 1999: 143) • Ni *[ji]tfa'x* (Seelwische 2016: 94) • PW **[ʔi]k^já'χ* > LB *[ʔi]tfoχ*; Vej *-tfa^h* 'to take away, to buy' [3]; 'Wk *[ʔi]k^já'χ* 'to take away, to buy' (Nercesian 2014: 225; Viñas Urquiza 1974: 51; Gutiérrez & Osornio 2015: 33; Claesson 2016: 179)

[1] The Nivaçle form points to **[ji]ka'χ*, the Wichí one to **[ji]ká'χ*, and Maká is ambiguous, because PM **á*, **a* and **e* all merged before a **χ* in that language.

[2] The function of the element *-e-* in Maká is unclear, but note that the cislocative prefix *-n-* comes between it and the (etymological) root in *[je-n-kaχ*, showing that it must have originally been a separate morpheme. The preglottalized coda is documented in the New Testament (e.g. Mark 6:29).

[3] Viñas Urquiza (1974) documents *-tfah*, which is more likely a mistranscription on Viñas Urquiza's part rather than a retention from PM.

Rejected: Najlis (1984) lists Chorote *aki* and *akahaj* 'I buy' as cognates. In fact, PCh **[tʔ]qaháj?* or **[tʔ]qáháj?* 'to buy' (> I'w *-kaháj-i*; Mj *[ti]kaháj?* and *[ti]kaháj-e*) cannot be a reflex of PM **[ji]ka'χ* ~ **[ji]ká'χ*, because PCh **q* cannot continue PM **k* in the onset position. Ijw *∅-ák-i* 'I take away/buy' is in fact a combination of the verb *∅-ák* 'I go' and the applicative */-eh/*, as evidenced by the conjugated forms *hl-ék-i* 'you take away/buy', *j-ám-e* 'he/she takes away/buys'.

Najlis 1984: 24 (**caq*); Gutiérrez 2015b: 64

***-kán (*-its) 'testicle'**

Ni *-kán-fij* (-is) (Seelwische 2016: 75; Campbell et al. 2020: 130) • PCh **-kán<is>* (**-is*) [1] > Ijw *-k^jánis* (-is); Mj *-k^jénis*, *-k^jénif-is* (Drayson 2009: 122; Carol 2018) • PW **-k^ján<is>* [1] > LB *-tfonis*; Vej *-tfanis* [1]; 'Wk *-k^jánis*, *-k^jáhsi-lis* (Nercesian 2014: 213; Viñas Urquiza 1974: 52; Claesson 2016: 63)

[1] In Chorote and Wichí, the PM plural suffix has been fossilized as a part of the root.

***-ká's, *-kás-él 'tail'**

Ni *-ká's*, *-kás-ek* (Seelwische 2016: 75) • PCh **-ká's* > Ijw *-k^jás*; I'w *-k^jés*, *-k^jéxs-is* [1]; Mj *-k^jés* (Carol 2014a: 76; Drayson 2009: 122; Gerzenstein 1983: 142; Carol 2018) • PW **-k^jás*, **-k^jás-el^h* > LB *-tfos* (-eʔ); Vej *-tfa^s* (-eʔ) 'tail; lower back' [2]; 'Wk *-k^jás*, *-k^jás-eʔ* (Nercesian 2014: 191; Viñas Urquiza 1974: 52; Gutiérrez & Osornio 2015: 60; Claesson 2016: 63)

[1] The plural suffix attested by Gerzenstein (1983) for Iyo'awujwa' does not match the Nivaçle and Wichí data.

[2] The form is mistranscribed as *-tfas* in Viñas Urquiza (1974).

Najlis 1984: 27 (**cáhs*); Campbell & Grondona 2007: 17

***[ji]káʔt-APPL** ‘to fall’

Ni [ji]káʔt-APPL (Seelwische 2016: 75) • PW *[ni]kʰát(-APPL) ‘to fall, to be born’ > LB [ni]tʃot-tʃoʔ; Vej -tʃat(-APPL) [1]; ʷWk [ni]kʰát-APPL (Nercesian 2014: 219, 333; Viñas Urquiza 1974: 52; Claesson 2016: 183–184)

[1] The vowel *a* (as opposed to *ā*) in Viñas Urquiza (1974) could be a mistranscription.

***kéʔχa-juʔk, *kéʔχa-jku-jʰ** ‘red quebracho (*Schinopsis balansae*); *kéʔχa-jku-ʔp ‘fall season’

Mk *keʔe-jku-te-ʔk; keʔe-jku-ʔp* (-its) (Gerzenstein 1999: 229; Tekombo’e ha Tembikuaa Motenondeha 2020: 23–25) • Ni *tʃeʔxa-juk, tʃeʔxa-ku-j* ‘Myracrodruon balansae tree’ (Seelwische 2016: 97) • PCh **kéhla-juk; *kéhla-jku-p* > Ijw *kíhla-jik; kíhla-si-p*; Iʷw *kíhla-jik*; Mj *kíhl^(j)e-ek ~ kíhla-jik ~ kíhli-jik; kíhle-fe-p* (Carol 2014a: 92; Drayson 2009: 136; Gerzenstein 1983: 141; Carol 2018) • PW **kʰéʔt-juk^w, *kʰéʔt-kʰu-jʰ; *kʰéʔt-kʰu-p* > LB *tʃeʔt-jek^w, tʃeʔt-tʃe-j*; Vej *tʃe^(ʔ)t-juk; tʃeʔt-tʃu-p*; ʷWk *kʰéʔt-juk, kʰéʔt-kʰu-ç; kʰéʔt-kʰu-p* (Nercesian 2014: 192; Viñas Urquiza 1974: 52; Gutiérrez & Osornio 2015: 17; Claesson 2016: 186, 187)

Najlis 1984: 51 (**cehlaj(uk)*, PL **cehlajuk-j*); Campbell & Grondona 2007: 17

***[ji]kén** ‘to send’

Mk [j]<u>*kin* (Gerzenstein 1999: 227, 353) • Ni [ji]tʃen (Seelwische 2016: 97) • PCh **[ʔi]kén* > Mj [ʔi]ʃín / -kín (Carol 2018) • PW **[ʔi]kʰén* > LB/Vej *-tʃen*; ʷWk [ʔi]kʰéŋ (Braunstein 2009: 39; Viñas Urquiza 1974: 52; Claesson 2016: 188)

***kʰá(t)sʰi(?)** ‘Molina’s hog-nosed skunk’

Ni *kxatsʰi ~ txatsʰi* [1] (Seelwische 2016: 70) • PCh **kʰhwátsʰiʔ* > Iʷw *kiwátsʰeʔ ~ kifʰátsʰiʔ* ‘liar’; Mj *kihwátsʰe (-s)* [2] (Gerzenstein 1983; Carol 2018)

[1] The variant *txatsʰi* is marked as “T. Lh.” in Seelwische (2016: 70), which likely stands for “Tavashai Lhavos” (or maybe “Tovôc Lhavos”).

[2] The absence of a stem-final *-ʔ* in the singular form in Manjui could be due to a mistranscription.

***-kʰe(?)**, ***-kʰé-jʰ** [1] ‘ear’ [2]

Mk *-kʰiʔ (-j)* ‘ear; corner’ (Gerzenstein 1999: 143, 250) • Ni *-kʰeʔ (-j)* (Seelwische 2016: 69) • PW **(t-)kʰe<j>*, **(t-)kʰe* (in compounds) ‘arm, hand’ > LB *-t-kʰe<j> (-aj); -t-kʰe* (in compounds); Vej *-kʰe<j>*; ʷWk *-k^(w)e<j>ʔ, -k^(w)é<j>-aç ~ -eç, 3 ta-ke<j>ʔ; -ke-, 3 ta-ké-* (in compounds) (Nercesian 2014: 112, 154, 164; Viñas Urquiza 1974: 63; Gutiérrez & Osornio 2015: 60, 61; Fernández Garay 2006–2007: 214, 215; Claesson 2016: 62)

[1] The uncertainty regarding the reconstruction of the word-final glottal stop is due to the fact that the Lower Bermejeño Wichí reflex never occurs without a suffix.

[2] Following Najlis (1984: 29), we suggest that PW $^{*-(ta-)k^we<j>}$ (in compounds $^{*-(ta-)k^we-}$) ‘arm, hand’ is a semantically shifted reflex of PM $^{*-k\phi e(?)}$ ($^{*-j^h}$) ‘ear’. Despite the semantic difference, cases of colexification of the concepts such as ‘ear’ and ‘shoulder’ do exist (cf. Rzymiski et al. 2019). Also note that the Wichí word contains the prefix $-t(a)-$, found in a number of body part terms (Nercesian 2014: 164–165) and absent in the proposed cognates in other languages; it is conceivable that the Wichí term for ‘arm, hand’ arose as a compound whose original meaning was close to ‘ear of body’.

Rejected: Campbell & Grondona (2007: 15, 17) claim the Wichí noun to be cognate with the Maká and Chorote reflexes of PM $^{*-ko(?)j}$ ($^{*-áj^h}$) ‘hand, arm’. This is impossible for phonological reasons.

Najlis 1984: 29 (*takhwej); Gutiérrez 2015b: 77

$^{*[ji]k\phi'äs} \sim ^{*[ji]k\phi'ás}$ ‘to be torn open’ [1], CAUS $^{*[ji]k\phi'ás-at}$ [2]

Ni $^{[ji]k'as-APPL}$ ‘to break up into pieces’, CAUS $^{[ji]k'as-at}$ (Campbell et al. 2020: 304) • PCh $^{*[ʔi]k'(w)ós}$, CAUS $^{*[ʔi]k'(w)ós-at} > \text{Mj } [ʔi]tʃ'ós / -ʔós$, CAUS $^{[j]óxs-at}$ (Carol 2018) • PW $^{*[hi]k^wes} \sim ^{*[hi]k^w'és}$ [1] $> \text{LB } [hi]k^wes$; $^{Wk } [hi]k'és-k'ieʔ$ (Nercesian 2014: 49, 263; Claesson 2016: 179)

[1] The prosodic properties of the root cannot be established because the W eenhayek cognate is not attested without applicative morphology (the form with an applicative suffix is not revealing because in trisyllabic words the vowel of the peninitial syllable is lengthened in any case).

[2] The reconstruction of the cluster $^{*k\phi}$ is rather tentative. It aims to account for the unique vowel correspondence between Chorote and the remaining languages, and for the PW $^{*k^w}$, an extremely rare consonant. We do not exclude the possibility that Mk $-apk'as$ ‘piece’ (Gerzenstein 1999: 248) is also related, but Mk a is not a regular reflex of PM *ä .

***khát (fruit); $^{*khát-u'k}$, $^{*khát-ku-j^h}$ (plant) ‘cactus’**

Mk $khat-u'k$ [1], $khat-kw-i$ ‘*Cereus stenegonus*’ (Gerzenstein 1999: 230) • Ni $kxat$; $kxat-uk$, $kxat-ku-j$ [2] (Seelwische 2016: 69) • PCh *káhát ; $^{*káhát-uk}$, $^{*káhát-ku-j^h}$ ‘*Cereus forbesii*’ $> \text{Ijw } k'áhát^j-uk$; $\text{Mj } k'ehét$; $k'ehét-uk$, $k'ehét-ki-j$ (Drayson 2009: 135; Carol 2018) • PW $^{*k'áhát}$; $^{*k'áhát-uk^w} > \text{LB } tʃohot-ek^w$; $\text{Vej } tʃáhát$ ($-tájis$), $^{Wk } k'áhát$; $k'áhát-uk$ (Spagarino 2008: 60; Gutiérrez & Osornio 2015: 17; Claesson 2016: 179)

[1] The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo'e ha Tembikuaa Motenondeha 2022: 7).

[2] Ni a is not the regular reflex of PM *á .

Campbell & Grondona 2007: 16

$^{*-kí\phi ah}$, $^{*-kí\phi a-ts}$ (m.); $^{*-kí\phi a-keʔ}$ ($^{*-j^h}$) (f.) ‘neighbor’ [1]

Mk $-kife$ ($-ts$); $-kife-kiʔ$ ($-j$) (Gerzenstein 1999: 230) • Ni $-tʃi\phi a$ ($-s$) ‘fellow resident of the same village’ (Seelwische 2016: 101) • PCh $^{*-kíhwah}$, $^{*-kíhwa-s}$;

*-kíhwa-ke? > Ijw -kíhwa ‘partner’; Mj -kíhwa (-s); -kíhwa-ki? (Drayson 2009: 122; Carol 2018)

[1] This noun obviously contains the suffix *-*phah*, *-*pha-ts* ‘companion’.

***kijápo(°)p ~ *k'ijápo(°)p [1] ‘common potoo (*Nyctibius griseus*)’**

Ni *tf'ijapop* (-is) (Seelwische 2016: 110) • (?) PCh **qalápop* [2] > Ijw *kalápap*; Mj *kalápup* [3] (Drayson 2009: 134; Carol 2018) • PW **k'ijápop* > LB *tfijapup*; 'Wk *k'ijápop* (Nercesian 2014: 157; Claesson 2016: 192)

[1] The Nivaçle reflex points to PM **k'*, and the Wichí one to PM **k*.

[2] The Chorote form is divergent, casting doubts on whether it is related to the Nivaçle and Wichí forms.

[3] Hunt (1994) documents the Manjui form as *kalápap*.

Toba-Qom shows a similar form, *qapap* ~ *qopap* ‘common potoo’ (Buckwalter & Buckwalter 2013: 167).

***-kilá? (*-wot) ‘elder brother’**

Ni *-tfekla?* (-*bot*) [1]; *-tfikla-jinxat* ‘deceased elder brother’ (Seelwische 2016: 100) • PCh **-kilá?* (*-*wot*) > Ijw *-kil'<a>* [2], *-kil'e-wot*; I'w *-kil'é?*; Mj *-kil'(i)é?* (-*wat*) (Drayson 2009: 122; Gerzenstein 1983: 139; Carol 2018) • PW **-k'íla* (*-*lis*) [3] > LB *-tfila*; Vej *-tfila* (-*lis*); 'Wk *-k'íla?* (-*lis*) (Nercesian 2014: 194; Viñas Urquiza 1974: 53; Gutiérrez & Osornio 2015: 29; Claesson 2016: 65)

[1] The vowel *e* in Nivaçle is irregular. The expected vowel *i* shows up in *-tfikla-jinxat* ‘deceased elder brother’.

[2] The Iyojwa'aja' reflex *-kíl'a* /-k'ílâh/ is irregular. One would expect **-kil'é?* /-k'ílâ/. Maybe this noun contains an opaque suffix /-âh/ (not present in the plural form).

[3] The Wichí plural suffix does not match its Nivaçle and Chorote counterparts and must be innovative.

Najlis 1984: 50 (**c'ejlá*)

***-kitá? (*-wot) ‘elder sister’**

Ni *-tfita?* (-*bot*) (Seelwische 2016: 103–104) • PCh **-kitá?* (*-*wot*) > Ijw *-kít'<a>* [1], *-kít'e-wot*; Mj *-kité?* (-*wot*) (Drayson 2009: 122; Carol 2018) • PW **-k'íta* (*-*lis*) [2] > LB *-tfitá*; Vej *-tfitá* (-*lis*); 'Wk *-k'íta?* (-*lis*) (Nercesian 2014: 194; Viñas Urquiza 1974: 53; Gutiérrez & Osornio 2015: 29; Claesson 2016: 65)

[1] The Iyojwa'aja' reflex *-kít'a* /-k'ítâh/ is irregular. One would expect **-kit'é?* /-k'ítâ/. Maybe this noun contains an opaque suffix /-âh/ (not present in the plural form).

[2] The Wichí plural suffix does not match its Nivaçle and Chorote counterparts and must be innovative.

Najlis 1984: 50 (**c'ejtá*)

***-ko(?)j, *-koj-áj^h ‘hand, arm’**

Mk *-koj* (-ej) ‘hand, arm, forearm’ (Gerzenstein 1999: 232) • PCh **-kójʔ, *-koj-áj^h* > Ijw *-k’óʔ, -k’ój-e*; I’w *-k’ój, -kij-éj*; Mj *-k’ójʔ, -kij-éjh* (Carol 2014a: 77, 100; Drayson 2009: 122; Gerzenstein 1983: 143; Carol 2018)

Rejected: Campbell & Grondona (2007: 15, 17) include the Wichí noun for ‘hand, arm’ (PW **(t-)k^we<j>* / **(t-)k^we-*), which is impossible for phonological reasons. It is considered here to be a reflex of PM **-kφe(?)* ‘ear’ instead.

Campbell & Grondona 2007: 15

***kój-[?] ~ *k’ój-APPL [1] ‘round’**

Mk *k’o:j-xiʔ, k’o:j-om-xiʔ* ‘round (2D), disk-shaped’ (Gerzenstein 1999: 237) • PCh **kój<oj>-APPL* > Ijw *k’ójo-ts’i* ‘cylindrical’, *k’ójhoh-i’n* ‘round’; I’w *k’ójo-xiʔ*; Mj *ʔéti k’ójhjo-oj* (Drayson 2009: 136; Gerzenstein 1983: 143; Carol 2018)

[1] The Maká form points to PM **k’*, and the Chorote one to PM **k*.

***[t]kúʔj-APPL ‘to vomit’; *-kúj-hat[?] ~ *-kúj-et [1] ‘vomit’**

Mk *[t]<’e>kuj(i)-kij* [2] ‘to vomit’ (Gerzenstein 1999: 144) • Ni *[t(’a)]kuʔj-APPL* ‘to vomit’ [2]; *-kuj-et* ~ *-kuj-it, kuj-te-s* ‘vomit’ (Seelwische 2016: 83, 282) • PCh **[tʔ]qúj-’n, *[tʔ]qúj-eh* [3] ‘to vomit’ > Ijw *[ta]kó-’n<i>*, *[ta]kój-i*; I’w *-kó-hin*; Mj *[ʔi]k’új-ʔin* / *-k’ój-ʔin*; **-qú<h>j<at>* [3] ‘vomit’ > Ijw *-kóhjet*; Mj *-kóhjet* (Drayson 2009: 123, 149; Gerzenstein 1983: 144; Carol 2018) • PW **[t]k’új-APPL* [4] ‘to vomit’ > LB *[ta]tʔej-tin*; Vej *[ta]tʔuj-APPL*; ’Wk *[t(a)]k’ú-APPL* [5]; **-k’új-hat* > [4] ‘vomit’ > Vej *-tʔúçat*; ’Wk *-k’úçat* (*-k’úçt-es*) (Braunstein 2009: 56; Viñas Urquiza 1974: 54; Gutiérrez & Osornio 2015: 33, 47; Claesson 2016: 69, 209, 365)

[1] Nivaçle points to **-kúj-et* ~ **-kúj-it*, and Chorote and Wichí to **-kúj-hat*.

[2] We have no explanation for the element *-’e-* in Maká and its likely cognate *-’a-* in Nivaçle (in the latter language, it disappears in some inflected forms).

[3] In the Chorote reflex, PM **k* unexpectedly yields PCh **q*.

[4] The glottalization in Wichí **k’* is irregular.

[5] The loss of PW **j* in the ’Weenhayek verb is irregular (compare Vej *le-ta-tʔuj-ti* and ’Wk *la-tá-k’ú-tih*, both meaning ‘you vomit’).

***kulaʔj ~ *kuláʔj ‘sun’**

Ni *<xum>kuklaʔj* [1] (Seelwische 2016: 158) • PCh **k’ulájʔ* > Ijw *kil’éʔ* ~ *kiliʔé*; I’w *kiláj*; Mj *kilájʔ* (Carol 2014a: 92; Drayson 2009: 136; Gerzenstein 1983: 139; Carol 2018)

[1] The element *xum-* of unknown origin occurs in a number of Nivačle words whose cognates in other languages lack any counterpart thereof, suggesting that it was etymologically a prefix.

Najlis 1984: 33, 38 (**hnu**culaj*)

***[ji]kúʔ ‘to answer’**

Mk [j]<e>*kuʔ* [1] (Gerzenstein 1999: 144) • Ni [ji]*kuʔ* (Seelwische 2016: 82) • PCh *[ʔi]kúhl-APPL > Ijw [ʔi]sʔúhl-i / -kʔúhl-i; Mj [ʔi]fúhl-APPL / -kʔúhl-APPL (Drayson 2009: 112; Carol 2018) • PW *[ni]kʔúʔ > LB [ni]ʔfeʔ-u; Vej -ʔfuʔ-o; ʔWk [ni]kʔúʔ (Nercesian 2014: 402; Viñas Urquiza 1974: 53; Claesson 2016: 198)

[1] The preglottalized coda in Maká is attested in the New Testament (e.g. Luke 19:34).

***[t]kúʔm-APPL ‘to grab; to work’**

Mk [tʰ]e*kuʔm*-APPL [1] (Gerzenstein 1999: 144) • Ni [tʰa]*kuʔm*-APPL (Seelwische 2016: 282) • PCh *[ʔi]kúʔm-APPL > Ijw [ʔi]síʔm / -kíʔm ‘to grab’, [ʔi]sihm-eʔn / -kíhm-eʔn ‘to work’ [2]; Iʔw -kíʔm-eʔ ‘to grab’, -kíhm-en ‘to work’ [2]; Mj [ʔi]fúʔm-APPL / -kʔúʔm-APPL (Carol 2014a: 90; Drayson 2009: 111–112; Gerzenstein 1983: 140, 141; Carol 2018) • PW *[t]kʔúʔ(?)m-APPL > LB [ta]ʔfem-APPL; Vej -ʔfum-APPL; ʔWk [t(a)]kʔúʔ(?)m-APPL (Nercesian 2014: 238; Viñas Urquiza 1974: 53; Claesson 2016: 360–362)

[1] The preglottalized coda in Maká is attested in the New Testament (e.g. Luke 7:41; Luke 24:43; Mark 14:46).

[2] Of all Chorote varieties, only Manjui preserves the etymological vowel *u*. Iyojwaʔajaʔ and Iyoʔawujaʔ show a non-palatalizing *i* (underlying /e/).

Najlis 1984: 16, 51 (**cuhme*)

***-kun ~ *-kún ‘to eat (intr.)’; CAUS *[ʔi]kún-han ‘to feed’**

Mk [j]<e>*kun-hen* [1] ‘to feed’ (Gerzenstein 1999: 142) • Ni <*tsak*>*kun* [2]; [ji]*kun-xan* (Seelwische 2016: 81, 291) • PCh *[tʰ]ʔjá>*kun* ‘to eat (intr.)’ [3] > Ijw [ti]ʔjékʔuʔn; Iʔw -jékʔun; Mj [ti]ʔjékin; *[ʔi]qúhn-an ‘to feed’ [4] > Ijw [ta]kóhnʔ-eʔn; Iʔw -kóhn-an; [ʔi]kʔúhn-an / -kóhn-an (Drayson 2009: 149, 152; Gerzenstein 1983: 144; Carol 2018) • PW *[ʔi]kʔúʔ<han> ‘to feed’ > LB [ʔi]ʔfeʔan; Vej -ʔfuʔen [5]; ʔWk [ʔi]kʔúʔan (Nercesian 2014: 336; Viñas Urquiza 1974: 53; Claesson 2016: 199)

[1] We have no explanation for the element *e-* in Maká.

[2] We have no explanation for the element *tsak-* in Nivačle. Note that this verb belongs to the *t*-class and thus contains the zero allomorph of the prefix *t-* in the third-person realis form.

[3] We have no explanation for the element *-ʔjá- in Chorote.

[4] In the Chorote causative, PM **k* unexpectedly yields PCh **q*.

[5] The vowel in the causative suffix is unexpectedly attested as *e* (rather than *a*) in the Vejoz reflex.

10 Dictionary

Rejected: Najlis (1984: 28) compares the Wichí causative with Ijw *k'únⁱe* 'jaguar' (Drayson 2009: 137), which is impossible both for phonological and semantic reasons.

**kús* 'heat'

(?) Mk *kus* (-its) 'Pyrocephalus rubinus' [1] (Gerzenstein 1999: 233) [1] • Ni *kus* (-ik) (Seelwische 2016: 81) • PCh **kús-APPL* 'to be hot' > I'w *k'úxs-APPL*; Mj *k'úxf-APPL* (Gerzenstein 1983: 144; Carol 2018)

[1] The semantic relation between the Maká ornithonym *kus* and the PM term for 'heat' may have something to do with the seasonal migration pattern of *Pyrocephalus rubinus*.

Rejected: Najlis (1984: 12) compares Nivaçle *kus* with the Wichí and Chorote terms for 'sweat' (PW **k'úx^w*, PCh **kúni?*) and reconstructs PM **cu* 'heat'. This is impossible for phonological reasons.

Campbell & Grondona 2007: 15

*-*kút-ex* 'to meet'

Mk [*w(e)*]*kut-ix-u^ʔt* [1] (Gerzenstein 1999: 365) • Ni [*βa*]*kut-ef* (Seelwische 2016: 81) • PCh **[ʔi]kút-eh* > Ijw [*ʔi*]*s'út-i* / -*k'út-i*; I'w -*k'út-e?* [2]; Mj [*ʔi*]*fút-e* / -*k'út-e* (Drayson 2009: 112; Gerzenstein 1983: 143; Carol 2018) • PW **-k'út-ex* > Vej -*tfut-eh*; 'Wk [*ni*]*k'út-ex* (Viñas Urquiza 1974: 54; Claesson 2016: 200)

[1] The preglottalized coda in the Maká applicative suffix is attested in other verbs in the New Testament (e.g. [*t*]*'eku'm-ixu^ʔt* 'to grab something from one's front' in Luke 24:43).

[2] The stem-final glottal stop in Iyo'awujwa' must be a mistranscription on Gerzenstein's (1983) part.

**kú*'*X*₁₂ 'sweat'

Ni -^ʔ*β-ku^ʔx*, -^ʔ*β-kux-is* (Seelwische 2016: 336) • PW **k'úx^w* > LB *tfef^w ʔi-lon X* 'X sweats' (literally '*tfef^w* kills X'); Vej *tfuh^w* [1]; 'Wk *kú^ʔx* (Braunstein 2009: 39; Viñas Urquiza 1974: 53; Claesson 2016: 196)

[1] Attested without the labialization of the final consonant (*tfuh*) in Fernández Garay (2006–2007: 221).

Rejected: Najlis (1984: 12) compares the Wichí word with Nivaçle *kus* 'heat' and with the Chorote term for 'sweat' (PCh **kúni?*) and reconstructs PM **cu* 'heat'. This is impossible for phonological reasons.

**k'alxó*, **k'alxó-ts* 'southern three-banded armadillo'

Mk *k'olo^ʔx* (-its) [1] (Gerzenstein 1999: 237) • Ni *k'akxo* (-s) [2] (Seelwische 2016: 84) • PCh **k'ihló?* (*-s) [3] > Ijw *k'ihl'ó?*; I'w *ʔihl'ó?*, *ʔihl-ís*; Mj *ʔihl(i)ó?* (-s) (Carol 2014a: 82; Drayson 2009: 137; Gerzenstein 1983: 132; Carol 2018) • PW **k'^janhóh* > LB *tf'anu*; Vej *tf'əno* [4]; 'Wk *k'^janhóh* (Nercesian 2014: 51; Gutiérrez & Osornio 2015: 20; Claesson 2016: 204)

[1] The singular form in Maká was first reshaped based on the PM plural form (**k'axóh*, **k'axó-ts* > **k'oló'x*, **k'olxó-ts*); later the plural form was reshaped based on the innovative singular one (*k'oló'x*, *k'olox-its*). One would expect **k'olxo* (**-ts*). The preglottalized coda in the singular form is attested in Braunstein (1987: 51).

[2] The failure of PM **k'* to palatalize in Nivačle is unexpected.

[3] The development of PM **a* to Chorote *i* is not known to be regular.

[4] Vejoz *e* is not the regular reflex of PW **a*. The datum is mistranscribed as *tʃeno* in Viñas Urquiza (1974: 54).

Rejected: Najlis (1984) compares Ni *k'akxo* with the Wichí term for 'big hairy armadillo' (PW **hówanax*) and reconstructs PM **qo*. The comparison is untenable.

Najlis 1984: 48 (**cehl(h)no*)

***[t]k'aw-APPL 'to hold in one's arms, to hug' [1]**

Mk *[t]<i>k'ej-ix* [2] (Gerzenstein 1999: 196) • PCh **[ʔi]k'aw-(...)-hop* > Ijw *[ʔi]tsʲéhw-ap / -kʲéhw-ap*; I'w *-kʲafʷ<él>-ap* [3 4]; Mj *[ʔi]tʃe<h>w<é>h<l>-ap / -ʔa<h>w<é>h<l>-ap* [4] 'to raise with one's arms', *[ʔi]tʃe<h>w<él>-e / -ʔa<h>w<él>-e* [4] 'to raise or hold with one's arms' (Drayson 2009: 114; Gerzenstein 1983: 141; Carol 2018) • PW **[t]kʲáw-eχ* > 'Wk *[t(a)]kʲáw-ex* (Claesson 2016: 364)

[1] This constitutes one of the few cases of potential PM **w* in coda position. Since in Chorote this stem is documented without an applicative (with an NP followed by a postposition instead) it is reasonable to assume this also existed in PM.

[2] Maká *j* is not the expected reflex of PM **w*. It is possible that Mk *[t]<i>k'aw* 'to have sex' (Gerzenstein 1999: 196) is also related, with the expected consonant *w* but with an unexpected lowered vowel.

[3] Gerzenstein's (1983) attestation of the Iyo'awujwa' reflex must be a mistranscription for *-kʲafʷéhlap*.

[4] The Iyo'awujwa' and Manjui include the element */-hwél/*, originally a reflex of PM **-fél* ~ **-fál* 'to wrap, to hug'.

***-k'áxeʔ (*-l) 'arrow (made of wood)'**

Mk *(-)qaxiʔ (-l)* [1] (Gerzenstein 1999: 304) • Ni *<bat>k'áxe (-j)* [2] 'diesel tree (*Copaiifera langsdorffii*; wood used for making arrows)' (Seelwische 2016: 343) • PCh **-k'áheʔ (*-l)* > Ijw *-kʲáhaʔ (-ʔl)*; Mj *-éheʔ* [3] (Drayson 2009: 123; Gerzenstein 1983: 198) • PW **-kʲáhe (*-lʰ)* > LB PL *-tʃohe-t*; Vej *-tʃáhni* [4]; 'Wk *-kʲáhaʔ (-ʔ)* [5] (Nercesian 2014: 331; Viñas Urquiza 1974: 54; Claesson 2016: 67)

[1] The stem-initial consonant in Maká is irregularly reflected as *q* rather than the expected **k'*.

[2] The plural form in Nivačle is non-etymological.

10 Dictionary

[3] The Manjui form is attested in Gerzenstein (1983: 198) as *-éhe?*. It must be a mistranscription for *-ʔéhe?*.

[4] The expected reflex in Vejoz would be **-tʃʰə [tʃʰə]*. It is possible that the representation *hni* in Viñas Urquiza (1974) results from a mistranscription of a phonetically nasalized vowel.

[5] Weenhayek *a* is not the regular reflex of PW **e*.

Najlis 1984: 21 (**c'ánhne*); Campbell & Grondona 2007: 16

***k'á ~ *k'á** 'variable antshrike (*Thamnophilus caerulescens*)'

Mk *k'a?* 'sibilant sirystes (*Sirystes sibilator*)' (Braunstein 1987: 65) • Ni *k'á?<á>* (-k) (Campbell et al. 2020: 288) • PW **k'á ~ *k'á* > LB *t'o* (Spagarino et al. 2013 [2011])

***-k'álφah** 'spouse' [1]

Ni *-tʃakφa* (Campbell et al. 2020: 191) • PCh **-k'élhwah* > (?) Ijw *-k'émhla* (-jes) [3 4]; I'w *-ʔilʃwa?* (-jis) [4]; Mj *-ʔilhwa* (Carol 2014a: 100; Drayson 2009: 123; Gerzenstein 1983: 130; Carol 2018) • PW **-k'j'éx'wah* > LB *-tʃeh'wa* (-j); Vej *-tʃeh'wa* (-s); 'Wk *-k'j'éx'wah* (Nercesian 2014: 163; Viñas Urquiza 1974: 54; Gutiérrez & Osornio 2015: 29; Claesson 2016: 67)

[1] This noun obviously contains the suffix **-φah*, **-φa-ts* 'companion'.

[2] The Nivaçle reflex has an unexpected allomorph *-ktʃakφa* when it combines with the indefinite possessor prefix *bat-* (Campbell et al. 2020: 97). It is thus possible that the correct PM reconstruction is actually **-lk'álφah*. However, *k* is not found in other possessed forms.

[3] If the Iyojwa'aja' word belongs here, it must be considered quite irregular: one would expect **-k'j'ilhwa* and not *-k'émhla*.

[4] In Carol's (2014a) and Gerzenstein's (1983) attestations of the reflexes in Iyojwa'aja' and Iyo'awujwa', there is an unexpected word-final glottal stop.

Rejected: Najlis (1984: 37) includes reflexes of PCh **-ná?* 'father', which are obviously unrelated.

Najlis 1984: 37 (**célna*)

***[ji]k'án** 'to stretch out'

Ni *[ji]tʃan* (Seelwische 2016: 109) • PCh **[ʔi]k'én-APPL* > Ijw *[ʔi]ts'in-APPL* / *-k'in-APPL*; Mj *[ʔi]tʃihn-a'm* / *-ʔihn-a'm* (Drayson 2009: 115; Carol 2018) • PW **[hi]k'j'én* > Vej *[hi]tʃen* [2]; 'Wk *[hi]k'j'én* (Gutiérrez & Osornio 2015: 32; Claesson 2016: 205)

[1] Viñas Urquiza (1974: 103) documents this root as *-tʃen<pa>*, which must be a mistranscription.

***[ji]k'ásaʔχ ~ *[ji]k'áseʔχ** 'to divide'

Mk *[j]<a>k'esaʔχ* [1] (Gerzenstein 1999: 115, 117) • PCh **[ʔi]k'ésah* > Ijw *[ʔi]ts'íxsa* / *-k'íxsa*; I'w *[i]ts'íxsa-ji* / *-isa-ji* [2]; Mj *[ʔi]tʃíxsa-APPL* /

-ʔixsah-APPL (Drayson 2009: 115; Gerzenstein 1983: 45; Carol 2018) • PW **[hi]k'ésax* > LB *[hi]tʃ'esax*; Vej *[hi]tʃ'esah*; 'Wk *[hi]k'ésax* (Nercesian 2014: 242; Gutiérrez & Osornio 2015: 32; Claesson 2016: 206)

[1] The preglottalized coda in Maká is attested in the New Testament (e.g. 2 Corinthians 9:9).

[2] The Iyo'awujwa' reflex is likely a mistranscription for *[ʔi]ts'ixsa-ji / -ʔixsa-ji*.

Viegas Barros (2013a: 305) compares the verb to Proto-Guaicuruan **-kef'óqo* (with reflexes in Mbayá 'to peck', Abipon 'to cut wood', Pilagá 'to split wood, to axe', Toba-Qom 'to axe'), an etymology not mentioned in an updated work by the same author (Viegas Barros 2013b).

Viegas Barros 2013a: 305 (**-k'ésah*) 'to split'

***k'ék'eh 'monk parakeet'**

Ni *tʃ'etʃ'e (-k)* [1 2] (Seelwische 2016: 110) • PCh **kék'eh* > Ijw *kik'i (-wa)*; I'w *k'ík'ih (-jis)* [1]; Mj *kíʔih (-waʔ)* (Drayson 2009: 136; Gerzenstein 1983: 139; Carol 2018) • PW **k'ék'je* > LB/Vej *tʃ'etʃ'e*; 'Wk *k'ék'jeʔ (-lis)* (Nercesian 2014: 157; Gutiérrez & Osornio 2015: 20; Claesson 2016: 186)

[1] In the Yita' Lhavos dialect of Nivaçle, this word is attested with a high vowel: *tʃ'itʃ'i* (Gutiérrez 2015b: 38).

[2] The glottalized stem-initial consonant in Iyo'awujwa', as attested in Gerzenstein (1983), could be a mistranscription.

Rejected: Gutiérrez (2015b: 64) compares the Nivaçle word to Maká *k'ek'e (-l)* 'white-winged parakeet' (Gerzenstein 1999: 235), whose vowel cannot correspond to Ni *e* except before uvulars. Instead, we propose that the Maká term is an early borrowing from Nivaçle.

***-k'ínix, *-k'ínxi-ts[1] 'younger brother'**

Mk *-k'ínix, -k'ínx-ats* (Gerzenstein 1999: 236) • Ni *-tʃ'inif / -tʃ'infi-k̄laj* (Seelwische 2016: 110, 336) • PCh **-k'ínih, *-k'ihnī-s* > Ijw *-k'íni ~ -ʔjini, -ʔ'ihnī-s*; I'w *-j'ini*; Mj *-ʔ'ini, -ʔ'in'a-wot* (Drayson 2009: 123, 128; Gerzenstein 1983: 134; Carol 2018) • PW **-k'j'iniχ, *-k'j'inhī-s* > LB *-tʃ'inix* [2]; Vej *-tʃ'inih, -tʃ'ĩni-s* [2]; 'Wk *-k'j'ínix, -k'j'ĩni-s* (Nercesian 2014: 194; Gutiérrez & Osornio 2015: 29; Claesson 2016: 68)

[1] The plural form is reconstructed based on the evidence of Iyojwa'aja' and Wichí. It is thus technically reconstructible only for Proto-Chorote–Wichí.

[2] The Lower Bermejeño Wichí form, as attested by Nercesian (2014), is irregular in having a plain initial consonant rather than the expected **tʃ'*. Viñas Urquiza (1974) also documents plain *tʃ'* in Vejoz, but this must be a mistranscription.

Najlis 1984: 20, 50 (**c'ihnī, *c'ejhni*); Campbell & Grondona 2007: 16; Gutiérrez 2015b: 255–256

***-k'ínxáʔ ~ *-k'ínxáʔ [1] (*-wot) 'younger sister'**

Mk *-k'ínxáʔ ~ -k'ínxáʔ* [1] (-j) [2] (Gerzenstein 1999: 236) • Ni *-tʃ'inxá (-βot)* (Seelwische 2016: 337) • PCh **-k'ihnáʔ (*-wot)* > Ijw *-k'ihn'a ~ -ʔjhn'a, -ʔjhn-is*

[3]; I'w *-kíhn^he?*, *-kíhn^ha-wot* [4]; Mj *-ʔíhn^he?* (*-wat*) (Drayson 2009: 123, 128; Gerzenstein 1983: 141; Carol 2018) • PW **-k^jínhâ* (**-lis*) [2] > LB *-tʃiño* [4]; Vej *-tʃiñâ* (*-lis*) [4]; 'Wk *-k^jiñâ?* (*-lis*) (Nercesian 2014: 194; Gutiérrez & Osornio 2015: 29; Claesson 2016: 68)

[1] The Maká reflex is attested with χ in Gerzenstein (1999) and with x in the New Testament (e.g. in Mark 3:35; Matthew 12:50; John 11:5).

[2] The plural forms in Maká and Wichí are innovations.

[3] The absence of a stem-final *-ʔ* in the singular form in Iyojwa'aja' is unexpected.

[4] The Iyo'awujwa' and Lower Bermejeño Wichí forms, as attested by Gerzenstein (1983) and Nercesian (2014), are irregular in having a plain initial consonant rather than the expected I'w **k*, LB **tʃ*. Viñas Urquiza (1974: 53) also documents plain *tʃ* in Vejoz, but this could be a mistranscription.

Campbell & Grondona 2007: 16; Gutiérrez 2015b: 64

***-k^jo, *-k^jó-l 'bottom'**

Ni *-k^jo?* (*-k*) 'anus' (Seelwische 2016: 86) • PCh **-k^jó?* 'bottom', **-k^jó-ke?* 'waist' > Ijw *-k^jó?* 'mount', *-k^jó-ji* 'bottom', *-k^jó-ki?* [1] 'waist'; I'w *-k^jó-ki?*; Mj *-ʔó-ki?* 'waist' (Carol 2014a: 77; Drayson 2009: 123; Gerzenstein 1983: 143, 190; Carol 2018) • PW **-k^jo*, **-k^jó-l^h* > LB *-tʃ^ou* (*-ʔ*); Vej *-tʃ^o*; 'Wk *-k^jo?*, *-k^jó-t* (in compounds such as *[ta]ké-k^jo?* 'palm of hand', *-wilis-k^jo?* 'armpit') (Nercesian 2014: 201; Viñas Urquiza 1974: 54; Gutiérrez & Osornio 2015: 61, 66; Claesson 2016: 62, 102)

[1] Drayson (2009: 123) mistranscribes the Iyojwa'aja' form for 'waist' as *-k^jó-ki*.

Rejected: Najlis (1984: 44) compares the Wichí word (glossed as 'bark') with the Nivaçle and Chorote terms for 'horn' (< PM **-k^ju*, **-k^jú-l* 'horn; club').

***-k^ju, *-k^jú-l 'horn; club'**

Mk *-k^ju?* [1] (*-l*) 'club' (Gerzenstein 1999: 237) • Ni *-k^ju?* (*-k*) 'weapon; digging stick' (Seelwische 2016: 90; Fabre 2014: 83) • PCh **-k^jú?* (**-l ~ *-l<is>*) > Ijw *-k^jú?* (*-l<is>*) 'horn', *-k^jú?* (*-ʔ*) 'stick, hammer for killing fish'; I'w *-k^jú?* (*-lis*) 'horn, club'; Mj *-ʔú?* (*-l*) 'horn' (Drayson 2009: 123; Gerzenstein 1983: 143; Carol 2018) • PW **-k^ju*, **-k^jú-l^h* 'horn' > LB *-tʃ^e*; 'Wk *-k^ju?*, *-k^jú-t* (Nercesian 2014: 48; Claesson 2016: 68)

[1] The root-final *ʔ* in the Maká singular form is attested in the New Testament (Revelations 12:5; Revelations 19:15). Gerzenstein (1999) attests *-k^ju*.

Rejected: Najlis (1984: 44) compares the Nivaçle and Chorote terms for 'horn' with reflexes of PW **-k^jo* (**-l^h*) 'bottom' (glossed as 'bark' in Najlis 1984).

Najlis 1984: 16, 44 (**co* 'club', **c^o* 'horn'); Campbell & Grondona 2007: 15 ('club'), 17 ('horn')

***k'uj ~ *k'új 'cold'**

Mk *k'wi* / *k'uj-* (Gerzenstein 1999: 238) • Ni *k'uj* (-*jis*) (Seelwische 2016: 91) • PCh **k'új?* > I'w *júj-APPL*; Mj *?új?* (Gerzenstein 1983: 135; Carol 2018)

Fabre 2014: 306

***k'ú(t)sta(ʔ)χ, *k'ú(t)sta-ts 'barn owl (*Tyto alba*)'**

(?) Ni *k'ustax*, *k'usta-s* 'chalk-browed mockingbird (*Mimus saturninus*)' (Seelwische 2016: 91) [1] • PCh **k'ústah*, **k'ústa-s* > Ijw *k'ústa*; I'w *k'ú(h)stah* (-*as*) [2]; Mj *?ústa* ~ *?úfta* (-*s*) (Drayson 2009: 138; Gerzenstein 1983: 205; Carol 2018) • PW **k'ústaχ* > LB *t'festaχ*; 'Wk *k'ústax* (Nercesian 2014: 198; Claesson 2016: 209)

[1] Phonologically, the Nivačle ornithonym is a perfect match with Chorote and Wichí, but the species denoted by it has nothing in common with the barn owl (*Tyto alba*). It is possible that the Nivačle term arose as a contamination of two similar-sounding PM roots, **k'ú(t)staχ* 'barn owl' and **k'á(t)staχ* 'chalk-browed mockingbird' (whence PCh **k'ástah*, **k'ásta-s* 'chalk-browed mockingbird' > Ijw *k'ásta* (-*s*), Mj *?ésta* (-*s*); see Drayson 2009: 138; Carol 2018).

[2] The plain *k'* in Gerzenstein's (1983) data of Iyo'awujwa' must be a mistranscription, and the plural form in that variety is non-etymological.

***k'utX₂₃á'n, *k'utX₂₃án-its 'thorn'**

Ni *k'utxa'n*, *k'utxan-is* (Seelwische 2016: 91) • PCh **k'utá'n*, **k'után-is* > Ijw *k'it'é'n*; I'w *?itán*, *?itán-is*; Mj *?itá'n*, *?iten-éis* [1] (Drayson 2009: 137; Gerzenstein 1983: 132) • PW **k'j'uthá'n*, **k'j'uthán-is* > LB *t'f'it^han* [2]; Vej *t'f'ut^han*; 'Wk *k'j'ut^há'n*, *k'j'ut^hán-is* 'thistle sp.' (Spagarino 2008: 60; Nercesian 2014: 362; Gutiérrez & Osornio 2015: 17; Claesson 2016: 209)

[1] The stress in the Manjui plural form is non-etymological.

[2] The expected form would be **t^fet^han*.

Campbell & Grondona 2007: 17, 20

***k'utsa'χ, *k'utshá-s / *-k'útsa'χ, *-k'útsha-ts 'old' [1]**

Mk *k'utsa'χ* [2], *k'utshé-ts* (Gerzenstein 1999: 237) • Ni *k'utsa'x*, *k'utxsa-s* (Seelwische 2016: 92) • PCh **-k'j'úсах*, **-k'j'úsa-s* > Ijw *-k'j'úxs-e?* 'friend, boss'; I'w *-júxsa*; Mj *-?júxsa*, *-?júxse-s* (Drayson 2009: 123; Gerzenstein 1983: 135; Carol 2018) • PW **-k'j'útsaχ* > 'Wk *?atsíṇa-k'j'utsax* 'old woman' (Claesson 2016: 18)

[1] In Maká, Nivačle, and 'Weenhayek, the reflex of this etymon refers to old humans; in Iyo'awujwa' and Manjui, to old objects.

[2] The presence of a preglottalized coda in the singular form in Maká is inferred based on the Nivačle cognate; this form is otherwise not attested in our sources that distinguish between plain and preglottalized stops, such as UNICEF & Tekombo'e ha Tembikuaa Motenondeha (2022) and the New Testament.

Rejected: Najlis (1984: 26) and Campbell & Grondona (2007: 20) includes also the reflexes of PW **[hi]k'út* 'old' and **k'utsáx* 'cháguar (*Bromelia hieronymi*)' (only Najlis), which cannot be related for phonological reasons.

Najlis 1984: 27–28 (**cutsha*); Campbell & Grondona 2007: 20

****lásási(?) ~ *lásási(?)[?] ~ *lasási(?) ~ *lásási(?)* [1] 'slippery'**

Mk *--qa>lasasi<j>* 'to slip' [2] (Gerzenstein 1999: 124) • PCh **lásási? ~ *lásási?[?] ~ *lasási? ~ *lásási?* [1] > (?) Ijw *lálisi?* [3]; I'w *lasáxsi?*; Mj *láxsafi?* (Drayson 2009: 138; Gerzenstein 1983: 146; Carol 2018)

[1] The Iyo'awujwa' reflex points to initial stress in PCh and PM. The Manjui reflex points to peninitial stress in PCh and PM.

[2] The Maká verb contains a fossilized alienizing prefix and verbalizing suffix ('to have slipperiness').

[3] The Iyojwa'aja' term is entirely irregular and might be noncognate. There is a similar term *láxsasi* 'blue', *láxsa ape?e* 'purple' (Drayson 2009: 138), cognate with Iyo'awujwa' *láxsa(sen) ~ láxsá* 'blue', which is hardly related for semantic reasons.

****[ji]lá'j* 'to withstand'**

Ni *[ji]klá'j* (Seelwische 2016: 101) • PCh **[ʔi]láj-eh* > Ijw *[ʔi]láj-i / -láj-i*; Mj *[ʔi]l(ʔ)éj-i / -láj-i* (Drayson 2009: 101; Carol 2018) • PW **[ʔi]láj* > LB *[ʔi]loj-eχ*; Vej *-laj* [1]; 'Wk *[ʔi]láj?* 'to be satisfied, to live' (Nercesian 2014: 338; Viñas Urquiza 1974: 63; Claesson 2016: 214)

[1] The vowel *a* in the Vejoz reflex is likely a mistranscription on Viñas Urquiza's (1974) part.

****[ji]lán* 'to kill'**

Mk *[ji]lan* (Gerzenstein 1999: 239) • Ni *[ji]klán* (Fabre 2014: 246) • PCh **[ʔi]lán* > Ijw *[ʔi]l'á'n / -lá'n*; I'w *-lán*; Mj *[ʔi]l'é'n / -lán* (Carol 2014a: 77, 83; Drayson 2009: 101; Gerzenstein 1983: 145; Carol 2018) • PW **[ʔi]lán* > LB *[ʔi]lon*; Vej *[i]lân*; 'Wk *[ʔi]lán* (Nercesian 2014: 241; Viñas Urquiza 1974: 64; Gutiérrez & Osornio 2015: 34; Claesson 2016: 212)

Najlis 1984: 15 (3PL **lân-hné*); Gutiérrez 2015b: 253

****láp'ih ~ *láp'ih* 'snail'**

Ni *kláp'i* (Campbell et al. 2020: 27) • PCh **láp'ih* (**-is*) > Ijw *láp'i, láp'ih-is*; I'w *láp'ih, láp'ih-is* [1]; Mj *láp'i, láp'i-wa?* [2] (Drayson 2009: 138; Gerzenstein 1983: 146; Carol 2018)

[1] The Iyo'awujwa' form must be a mistranscription for *lap'ih* (*-is*).

[2] The Manjui plural does not match the form found in Iyojwa'aja' and Iyo'awujwa' and thus must be an innovation.

Rejected: Najlis (1984: 48) includes a reflex of PW **móp'i* ‘white heron’ into the comparison and reconstructs **p'i* ‘antenna, crest’. This is implausible for semantic, phonological, and morphological reasons.

Najlis 1984: 48 (*p'i* ‘antenna, crest’)

***[ji]lât ~ *[ji]lât̚ ~ *[ji]let ~ *[ji]lét [1] ‘to flee’**

Mk <*i*>*lat* ~ <*i*>*lit* (Gerzenstein 1999: 198) • Ni *[ji]klât* (Seelwische 2016: 101) • PCh * <°[j]i>*lt<an>* ~ [ʔi]<°j>*lt<an>* [2 3] > Ijw ʔ*[j]ilta'n* ~ [ʔi]ʔ*jilta'n*; Mj [ʔi]ʔ*jiltan* ‘to separate from’ (Drayson 2009: 118, 165; Carol 2018) • PW *ʔ*[ʔi]lét<han>* [3] > ʔWk [ʔi]lét^h*an* (Claesson 2016: 225)

[1] Nivačle points to PM *[ji]lât or *[ji]lât̚, Wichí to *[ji]let ~ *[ji]lét, whereas Maká has reflexes of both variants.

[2] We have no explanation for the element *°j- or *°j- in the Chorote form. The loss of the root vowel is likewise irregular.

[3] The Chorote and Wichí reflexes contain a fossilized suffix (PCh **-an*, PW **-han*).

Likely related to Proto-Guaicuruan **-ʔi(ʔ)lote* ‘to flee’ (Viegas Barros 2013b, #688; cf. Viegas Barros 2013a: 306).

Viegas Barros 2013a: 306 (**-ilât*)

***-lâʔ, *-lâ-j^h ‘domestic animal’**

Ni *-klâʔ* (-j) ‘domestic animal; one’s sport’ (Seelwische 2016: 337) • PCh **-lâ<hwah>* [1] > Ijw *-lâhwa* (-s); Iʔw *-lâf^wa* (-j); Mj *-lâhwa*, *-lâhwaa-j* (Drayson 2009: 123; Gerzenstein 1983: 145; Carol 2018) • PW **-lâʔ*, **-lâ-j^h* > LB *-loʔ* (-j); Vej *-lâ-j*; ʔWk *-lâʔ*, *-lâ-ç* (Nercesian 2014: 195, 169; Viñas Urquiza 1974: 64; Claesson 2016: 69)

[1] In Chorote, the suffix **-hwah* ‘companion’ has been fossilized to the root.

Obviously related to Proto-Southern Guaicuruan **-lo* ‘domestic animal’ (Viegas Barros 2013b: 280, fn. 157).

Najlis 1984: 35 (**lâ*)

***lâtseni(?) (fruit); *lâtsen-uʔk, *lâtsen-ku-j^h (tree) ‘chañar (*Geoffroea decor-ticans*)’**

Mk <*xu*>*letsin-uʔk*, <*xu*>*letsin-kw-i* [1] (Gerzenstein 1999: 393) • PCh **lêseniʔ*; **lêseni-k* > Ijw *lêsin*; *lêsin*-*k* (Drayson 2009: 138) • PW **létseʔnih*; **lêtsen-uk^w* > LB *letsʔenek^w* [2]; Vej *letseʔni*; *letsen-uk*, *letsen-ku-j* [3 4]; ʔWk *létseʔnih*; *lêtsen-uk*, *létseʔni-ç* [4] (Nercesian 2014: 193; Gutiérrez & Osornio 2015: 18; Claesson 2016: 225)

[1] The origins of the element *xu-* in Maká are unclear. The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 7).

10 Dictionary

[2] The glottalization in LB *ts*' is irregular.

[3] Viñas Urquiza (1974: 64) documents Vej *letsenn-uk*, which must be a mistranscription.

[4] The plural forms Vej *letsen-ku-j* and 'Wk *létsen-u-ç* do not correspond neither to each other nor to Maká *<xu>letsin-kw-i*. One would expect Vej **letsen-tfu-j*, 'Wk **létsen-k'u-ç*. Najlis 1984: 36 (**letseni*)

***[ji]le-n ~ *[ʔi]lé-n 'to tattoo, to paint one's face'; *-le-t ~ *-lé-t 'tattoo, face painting' [1]**

Mk *[ji]lin-ix* 'to oint, to paint' (Gerzenstein 1999: 243) • PCh **[ʔi]lé<n>* [2] > Ijw *[ʔi]li'n / -lé'n* 'to paint one's face'; I'w *-lén* 'to paint' [3]; Mj *[ʔi]lín / -lé'n* (Drayson 2009: 117; Gerzenstein 1983: 147; Carol 2018) • PW **-le<t> ~ *-lé<t>* 'tattoo' [4] > LB/Vej *-let* 'tattoo'; 'Wk *-let ~ -lét* 'face painting' [4] (Nercesian 2014: 410; Viñas Urquiza 1974: 64; Claesson 2016: 70)

[1] PM **-n* is a verbalizer and **-t* is a nominalizer (*nomen instrumenti*). Neither suffix is synchronically productive in the contemporary languages. Maká and Chorote have preserved only the verb, and Wichí only the noun.

[2] The glottalization in PCh **ʔ* is irregular.

[3] The seemingly plain reflex of PCh **ʔ* in Iyo'awujwa' could be a mistranscription on Gerzenstein's (1983) part.

[4] The 'Weenhayek reflex is only attested with the indefinite possessor prefix *'nó-*; for this reason, we do not know if it has an underlying short or long vowel.

***-lés 'offspring (sons and/or daughters)' (*plurale tantum*)**

Mk *-lits* (Gerzenstein 1999: 243) • Ni *-kles* 'offspring, sperm' (Seelwische 2016: 337) • PCh **-lés* > Ijw *-lés*; I'w *-lés*; Mj *-lés* (Drayson 2009: 124; Gerzenstein 1983: 122, 124; Carol 2018) • PW **-lés* > LB/Vej *-les*, 'Wk *-lés* (Nercesian 2014: 215; Viñas Urquiza 1974: 64; Claesson 2016: 69)

Viegas Barros (2013a: 312) notes the similarity with Proto-South Guaicuruan **-jalé* 'daughter', **-jalé-k* 'son', which could be spurious.

Najlis 1984: 11 (**lés*); Viegas Barros 2013a: 312 (**-le-ts*)

***[ji]lé'x 'to wash'**

Mk *[ji]li'x-xu?* [1] 'to clean' (Gerzenstein 1999: 244) • Ni *[ji]kle'f* (Seelwische 2016: 117) • PCh **[ʔi]léh* > Ijw *[ʔi]lih / -léh*; I'w *[i]lí / -lé*; Mj *[ʔi]lih / -léh* (Drayson 2009: 101; Gerzenstein 1983: 41, 146; Carol 2018) • PW **[ʔi]léχ* > LB *[ʔi]lex*; Vej *[hi]leh*; 'Wk *[ʔi]léx* (Nercesian 2014: 244; Braunstein 2009: 44; Viñas Urquiza 1974: 64; Gutiérrez & Osornio 2015: 36; Claesson 2016: 223)

[1] The preglottalized coda and the presence of two *x* is documented in the New Testament (*ne-n-li'x-xu?* in Ephesians 5:26; Revelations 21:4).

Gutiérrez 2015b: 64, 253

***lim ~ *lím ‘white’**

Ni *klim* (Seelwische 2016: 118) • PCh **lím-* > Ijw *lém<i>*, *lém<ih>-ji*; I'w *lém<i?>* [1]; Mj *léim<i?>* (Drayson 2009: 138; Gerzenstein 1983: 146; Carol 2018)

[1] Gerzenstein (1983: 186) also documents an irregular variant *hlém<i?>*, which must be a mistranscription. Elsewhere (Gerzenstein 1983: 146), one finds multiple attestations with *l-* (*lémi?*, *lémi-tsi?*, *lémi-jin*).

Najlis 1984: 36 (**lem*); Gutiérrez 2015b: 253

***(-)lká(?)ʔ ‘nasal mucus, cold’**

Mk *-leke(?)ʔ* (*-its*) (Gerzenstein 1999: 241) • PCh **kéʔ* > Ijw *kíʔ*; Mj *kíʔ* (*-es*) (Drayson 2009: 136; Carol 2018) • PW **k'él-tax*, **k'él-ta-s* > LB *tʃéʔ-tax*; Vej *tʃéʔ-tah*; 'Wk *k'él-tax*, *k'él-ta-s* (Braunstein 2009: 39; Viñas Urquiza 1974: 52; Gutiérrez & Osornio 2015: 47; Claesson 2016: 186)

Campbell & Grondona 2007: 16

***lkéte (fruit); *lkéte-(ju)ʔk (plant) ‘squash’**

Mk *lekiti*; *lekít-uʔk* [1], *lekíti-kw-i* (Gerzenstein 1999: 241; Braunstein 1987: 85) • PCh **kéte?*; **kéte-k* > I'w *kíti?*; Mj *kít'e?* ~ *kíti?*; *kít'e-k* (Gerzenstein 1983: 140; Carol 2018)

[1] The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo'e ha Tembikuaa Motenondeha 2022: 7).

Campbell & Grondona 2007: 16

***(-)lo(?) ~ *(-)ló(?) ‘ashes’**

Mk *lo?(-l)* (Gerzenstein 1999: 235) • PCh **-ló?* > Ijw *-lʔ* ‘burnt remains, ashes (of something)’ (Drayson 2009: 124)

Obviously related to Proto-Guaicuruan **á(?)lo* ‘ashes’ (Viegas Barros 2013b, #33; cf. Viegas Barros 2013a: 311).

Viegas Barros 2013a: 311 (**lo?*)

***loʔp ~ *lóʔp, *lop-its ~ *lóp-its [1] ‘winter’**

Mk *loʔp* [2], *lop-its* (Gerzenstein 1999: 245; Tekombo'e ha Tembikuaa Motenondeha 2020: 23–25) • Ni *kloʔp*, *klop-is* (Seelwische 2016: 119) • PCh **lóp* > Ijw *lóp* ‘fall; hunger season’ (Drayson 2009: 138) • PW **lop* ~ **lóp* > LB *lup* (Nercesian 2014: 49)

[1] The plural form is reconstructed based on Maká *lop-its* and Nivaçle *klop-is*; it is thus technically reconstructible only for Proto-Maká–Nivaçle.

[2] The Maká reflex is mistranscribed as *lop* in the New Testament (John 10:22); the expected form *loʔp* is otherwise documented (Tekombo'e ha Tembikuaa Motenondeha 2020: 23–25).

Gutiérrez 2015b: 253

***lóta-(ju)ʔk** ‘iscayante tree (for making bows)’

Ni *kłota*<tf> (Seelwische 2016: 119) • PCh **lóta-juk* ‘*Mimozyanthus carinatus*’ > Ijw *lóta*<k>-ik; Iʼw *lóta*<k>-ik ~ *lóta-ʔik*; Mj *lóta-ʔik* ~ *lôte-jik* (Drayson 2009: 138; Scarpa 2010: 186; Carol 2018) • PW **lôte*<q>, **lót*<h>-aj^h > LB *luteq*, *lut^h-aj* ‘arrow’; Vej *lotek*; ʼWk *lótek*, *lót^h-aç* ~ *lót^h-eç* ‘*Prosopis abbreviata*; bow, arrow’ (Nercesian 2014: 192; Gutiérrez & Osornio 2015: 18, 57; Claesson 2016: 226)

***[ʔa]lólχ, *[ʔa]lól-ts** ‘many’

Mk <o>*lo*<ts> [1 2] (Gerzenstein 1999: 281) • Ni <ʔa>*kłox* (Seelwische 2016: 38) • PCh **[ʔa]lólh* [3] > Ijw *lólh*; Iʼw *[a]lólh*; Mj *[ʔa]lólh* (Carol 2014: 78; Drayson 2009: 162; Gerzenstein 1983: 120; Carol 2018) • PW **[ʔa]lól*<s> [2 4] > Vej *los*; ʼWk <ʔa>*lól*s (Viñas Urquiza 1974: 64; Claesson 2016: 11)

[1] The third-person prefix **ʔa-* has been fossilized in all languages except Chorote.

[2] The plural suffix **-ts* has been fossilized in Maká and Wichí.

[3] The glottalization in PCh **l* appears to be irregular (the seemingly plain reflex in Iyoʼawujwaʼ could be a mistranscription on Gerzenstein’s (1983) part).

[4] In Southwestern Wichí, one finds *lus* ‘two’ (Terraza 2009b: 93; Nercesian 2014: 359; Braunstein 2009: 50), which could be a phonologically regular reflex of PW **-lós* ‘many’, but it is more probable that this number term is a recent loan from Spanish *dos*.

Hunt 1915: 242; Gutiérrez 2015b: 253

***(-)lútseʔx, *(-)lútsxe-s** ‘bow’

Ni *kłutsef* / *-kłutseʔf* [1], *(-)kłutsfe-s* ‘bow, gun’ (Seelwische 2016: 345) • PCh **(-)lúseh* (-es) > Ijw *(-)lóxse* (-hes) [1]; Iʼw *lóxse* [2]; Mj *-lóxse*, *-lóxfi-is* (Drayson 2009: 124, 138; Gerzenstein 1983: 147; Carol 2018) • PW **(-)lútseχ*, **(-)lúts-es* > LB *-letseχ*, *lets-es*; Vej *-lutseh*; ʼWk *(-)lútsex*, *(-)lúts-es* (Braunstein 2009: 49; Viñas Urquiza 1974: 64; Claesson 2016: 70, 228)

[1] The allomorph *-kłutseʔf* is attested in Seelwische (2016: 345) in the form *bat-kłutseʔf*, yet the form *kas-kłutsef* is unexpectedly attested with a plain coda.

[2] The expected reflex in Iyojwaʼajaʼ would be **-lóxsi*. The failure of **e* to raise is unclear.

[3] The expected reflex in Iyoʼawujwaʼ would be **-lóxse*. Gerzenstein (1983) systematically transcribes [ʊ] as *o* in her data, but the word-final glottal stop must be a mistranscription.

Hunt 1915: 242; Najlis 1984: 11 (**lutshe*); Campbell & Grondona 2007: 19; Viegas Barros 2002: 143 (**-lutsex*)

***[ji]lXón** ‘to roast’

Ni *[ji]kxon* ‘to cook in ashes’ (Seelwische 2016: 112) • PCh **[ʔi]hlón* > Ijw *[ʔi]hlʼóʔn* / *-hlóʔn*; Mj *[ʔi]hl(ʼ)ón* / *-hlón* (Drayson 2009: 99; Carol 2018) • PW **[t]nhón* > LB *[t]<i>ṅun*; ʼWk *[t(a)]ṅóṅ* (Braunstein 2009: 57; Claesson 2016: 369)

***-^ʔlâ? ~ *-^ʔlâ? ‘adornment’ [1]**

Mk <?eti>^ʔla? (-j) ‘necklace’ [2], <?etsxiki>^ʔla? (-j) ‘necklace’ [2] (Gerzenstein 1999: 160, 309) • Ni <fo>^ʔklâ (-s) ‘ankle bracelet with white feathers’ • PCh *<kinú>^ʔla? ~ *<kenú>^ʔla? ‘necklace’ [3] > Ijw kin^ʔú^ʔl'e?; Mj kin^ʔú^ʔla? (Drayson 2009: 136; Carol 2018)

[1] The possible derivative *^ʔ-pâ^ʔlâ? ‘bracelet’ is discussed in a separate entry.

[2] The presence of a preglottalized sonorant in Maká is inferred based on the Nivaçle and Chorote cognates; the form is not attested in our sources that distinguish between plain and preglottalized codas, whereas Gerzenstein (1999) gives simply <?etila?>, <?etsxikila?> (she does not otherwise distinguish between *l* and ^ʔl).

[3] Chorote unexpectedly shows PCh **a* instead of **â* as the reflex of PM **â*, as shown by the vowel raising in Iyojwa'aja'.

***^ʔlájX₂₃VnâX₁₃â [1] ‘Azara’s night monkey’**

Ni klajxenâxâ (-k) (Seelwische 2016: 115) • PCh *^ʔlêhjanâhâ-ke? > Ijw <?a>^ʔlêhjena-ki? [2] ‘Azara’s capuchin’; I'w lêhna-ki? (-ji); Mj ^ʔlêhnaa-ki? (-j) (Drayson 2009: 95; Gerzenstein 1983: 147; Carol 2018)

[1] Regarding the reconstruction of the vowel of the second syllable, the Nivaçle reflex points to **e*, whereas the Iyojwa'aja' form points to **a* or **ä*.

[2] We have no explanation for the element ?*a*- in Iyojwa'aja'.

Najlis 1984: 15, 52 (*laj-hnaq, PL *lajhnaqs)

***-^ʔli^ʔx, *-^ʔlix-áj^h ‘language, word’**

Mk <?lix>^ʔe? (-j) [1] (Gerzenstein 1999: 243) • Ni <?kli^ʔf, <?klif-aj> ‘word’ (Seelwische 2016: 376) • PCh *^ʔ-lîh, *^ʔ-lah-áj^h > Ijw <?lêh>; I'w <?lêh (-aj)> [2]; Mj <?lêih, <?lah-áj^h> ‘language’ (Drayson 2009: 127; Gerzenstein 1983: 147; Carol 2018)

[1] The glottalization in the stem-initial sonorant in Maká is attested in the New Testament (e.g. Matthew 2:23; Mark 4:14).

[2] The plain reflex of PCh *^ʔl in Iyo'awujwa' as attested by Gerzenstein (1983) must be a mistranscription, and the plural form in that variety is leveled based on the singular form.

***(-)lâ?, *(-)lâ-ts ‘louse’**

Mk <?ij>^ʔlê? (-ts) [1] (Gerzenstein 1999: 193) • Ni <?lâ? (-s) [2] (Seelwische 2016: 161) • PCh *^ʔ-hlâ? (*-s) > Ijw <?hlâ? (-s)>; I'w <?i>^ʔhl^ʔé? (-s); Mj <?hlâ? (-s)> (Drayson 2009: 119; Gerzenstein 1983: 132; Carol 2018) • PW *lâ? > LB lâ?; Vej lâ; 'Wk lâ? (Nercesian 2014: 50; Viñas Urquiza 1974: 64; Claesson 2016: 230)

[1] We have no explanation for the element <?ij> in Maká.

[2] Campbell et al. (2020: 84) document the Nivaçle reflex as <?lâ, a form that we cannot explain at this time.

Najlis 1984: 28 (*hla)

***[ji]hʌ́m ‘to defecate’**

Mk <i>hʌ́m (Gerzenstein 1999: 199) • Ni [ji]hʌ́m (Seelwische 2016: 170) • PCh *[ʔi]hlá́m > Ijw [ʔi]hlʌ́m / -hlá́m; Mj [ʔi]hl(ʰ)é́m / -hlé́m (Drayson 2009: 99; Carol 2018) • PW *[t]<’a>hʌ́m [1] > LB [t]<’a>hʌ́m; ’Wk [t]<’a>hʌ́m (Braunstein 2009: 59; Claesson 2016: 431)

[1] The preglottalized coda in the Maká reflex is attested in the New Testament (*ihʌ́m-kij* ‘to have diarrhea’ in Acts 28:8).

[2] The Wichí reflex is irregular: one would expect PW **[t]hʌ́m > LB *[t]ahʌ́m; ’Wk [t]ahʌ́m.

***[ji]hʌ́n ‘to light fire’**

Mk [ni]hʌ́n-iʔ ‘to light fire’, [ni]hʌ́n-xiʔ ‘to smoke in’ (Gerzenstein 1999: 248) • Ni [ji]hʌ́n (Seelwische 2016: 170) • PCh *[ʔi]hlá́n-eʔeʔ ‘to fan the flame’, *[ti]hlá́hn-an ‘to smoke (intr.)’, *[ʔi]hlá́hn-ijʔ ‘to smoke (tr.)’ > Ijw [ʔi]hlʌ́n-eʔeʔ / -hlá́n-eʔeʔ [1], [ti]hlʌ́hn-aʰn, [ʔi]hlʌ́hn-ijʔ / -hlá́hn-ijʔ [1]; Iʷw -hlá́n-ee, -hlá́hn-an; Mj [ʔi]hl(ʰ)én-eʔeʔ / -hlá́n-eʔeʔ, [ti]hlá́hn-an, [ʔi]hl(ʰ)én-ijʔ / -hlá́hn-ijʔ (Drayson 2009: 98, 99, 150; Gerzenstein 1983: 174; Carol 2018) • PW *[ʔi]hʌ́n-APPL > ’Wk [ʔi]hʌ́n-APPL (Claesson 2016: 229)

[1] Drayson (2009) mistranscribes Ijw [ʔi]hlʌ́n-eʔeʔ / -hlá́n-eʔeʔ and [ʔi]hlʌ́hn-ijʔ as [ʔi]hlʌ́n-eʔe / -hlá́n-eʔe and [ʔi]hlʌ́hn-i, respectively.

Obviously related to Proto-Qom *[j]alon ‘to light fire’ and Kadiwéu [j]elo(n)-APPL ‘to light fire’. Viegas Barros (2013b) does not list this cognate set, but one may reconstruct Proto-Guaicuruan *[j]alon ~ *[j]elon.

Gutiérrez 2015b: 254

***hʌ́t ‘white snail’ [1]**

Ni hʌ́t (Seelwische 2016: 169) • PW *hʌ́t > LB/’Wk hʌ́t (Nercesian 2014: 51; Claesson 2016: 235)

[1] Ijw *hléhl-impe* ‘white monjita (*Xolmis irupero*)’ (Drayson 2009: 130) is ultimately related to this root, but it is likely a partial calque from PW *hʌ́t-t-’áχ ‘snail shell; white monjita (*Xolmis irupero*)’ > LB hʌ́t-t-’oχ; ’Wk hʌ́t-t-’áχ (Spagarino et al. 2013 [2011]; Claesson 2016: 235).

***(-)hʌ́(ʰ)t ‘firewood’**

Mk hʌ́t<uʔ> [1] ‘half-burnt wood’ (Gerzenstein 1999: 254) • PCh *-<ʔa>hlét ~ *-<ʔá>hlét (*-is) [2] > Ijw -ʔahlét (-is); Iʷw -ahlét (-is) ‘burning firewood’; Mj -ʔahlét (-es ~ -is) (Drayson 2009: 154; Gerzenstein 1983: 123; Carol 2018) • PW *-hʌ́t > Vej -hʌ́t; ’Wk -hʌ́t (Viñas Urquiza 1974: 66; Claesson 2016: 74)

[1] We have no explanation for the element -uʔ in Maká.

[2] We have no explanation for the element *-ʔa- or *-ʔá- in Chorote.

Obviously related to Proto-Guaicuruan *-o’let ‘fire’ (Viegas Barros 2013b, #439; cf. Viegas Barros 2013a: 311).

Viegas Barros 2013a: 311 (*-Vhʌ́tVʔ)

***-*hi*^ʔ*k* ~ *-*hi*^ʔ*k*, *-*hi*-*j*^h ‘thread’**

Ni -*hi*^ʔ*ʔf*, -*hi*-*j*<*is*> (Seelwische 2016: 169) • PCh *-*hlík*, *-*hlí*-*j*^h > Iʷw -*hlék*, -*hlé*-*j*;
Mj -*hlík* (Gerzenstein 1983: 174; Carol 2018)

***-*tu*^ʔ*k*, *-*tú*-*j*^h ‘yica bag, load’**

Mk -*tu*^ʔ*k* [1], -*tú*-*j* (Gerzenstein 1999: 255) • Ni -*tu*^ʔ*k* (Seelwische 2016: 171)
• PCh *-*hlúk*, *-*hlúj*-... > Ijw -*hlók*, -*hló*-*j*<*e*?>; Mj -*hlók* (Drayson 2009: 119;
Carol 2018) • PW *-*tuk*^w, *-*tú*-*j*<*is*> ‘bag, load’ > LB -*tek*^w; Vej -*tuk* [2]; ʷWk
-*tuk*, -*tú*-*j*<*is*> (Nercesian 2014: 418; Viñas Urquiza 1974: 66; Claesson 2016: 76)

[1] The presence of a preglottalized coda in the singular form in Maká is inferred based on the Nivačle cognate; it is not attested in our sources that distinguish between plain and preglottalized stops.

[2] The absence of labialization in the final consonant in the Vejoz reflex might be a mistranscription on Viñas Urquiza’s (1974) part.

****lum*^ʔ*a* ‘day’**

Ni *lum*^ʔ*a*-*fi* ‘tomorrow’; *lum*^ʔ*a*-*k*ϕ*inuk* ~ *lum*^ʔ*a*-*k**xinuk* (-*its*) [1] ‘east’ (Seelwische 2016: 171) • PCh **hlúma*^ʔ (*-*s*) > Ijw *hlóma* (-*s*) [1] ‘day, air, east’; Iʷw
hlóma (-*s*) [1]; Mj *hlóma*^ʔ (-*s*) (Drayson 2009: 131; Gerzenstein 1983: 175; Carol 2018)

[1] The variant *lum*^ʔ*a*-*k**xinuk* is irregular.

[2] The absence of a final glottal stop in Drayson’s (2009) and Gerzenstein’s (1983) attestations of the Iyojwa’aja’ and Iyo’awujwa’ reflexes must be a mistranscription.

Rejected: Najlis (1984: 38, 51) includes the Wichí term for ‘east’ (cf. Vej *h^woma* in Viñas Urquiza 1974: 60) into the comparison. By contrast, Gutiérrez (2015b: 254) compares the Chorote noun with the reflexes of PM **nátu*(*h*), **nátu*-*ts* ‘day, world’. Both proposals are untenable for phonological reasons.

Najlis 1984: 38, 51 (**hlówmahn*)

****huts*₂₃*a*(?) (*-*jek*) ‘girl’**

Ni *huts*₂₃*a* (-*jetf*) (Seelwische 2016: 171) • PCh **hlúsa*^ʔ (*-*jek*) > Ijw *hlóxse* [1];
Iʷw *hlóxsa* ~ *lúxsa*, *lúxsa*-*ji* [2]; Mj (*ʔa*)*hlóxsa*^ʔ, *hlóxse*-*jik* (Drayson 2009: 132;
Gerzenstein 1983: 147, 203; Carol 2018) • PW **hútsha* (*-*j*^h) [3] > LB *hets*^h*a*; Vej
huts^h*a* (-*j* ~ *hutsa*-*j*); ʷWk *húts*^h*a*^ʔ (-*ç*) (Nercesian 2014: 182; Gutiérrez & Osornio 2015: 51; Claesson 2016: 239)

[1] The expected Iyojwa’aja’ form would be **hlóxse*^ʔ */*hlúsa*/, not *hlóxse* /*hlúsa*/.

[2] The variant with an *l*, given by Gerzenstein (1983), is irregular. The plural suffix -*ji* (as opposed to the expected -*jik*) could be a mistranscription.

[3] The plural form attested in Wichí does not match those seen in Nivačle and Manjui.

Najlis 1984: 26 (**hltush-a*); Gutiérrez 2015b: 254

***ma** ‘interrogative particle (heads polar interrogatives)’

Mk *me* (Gerzenstein 1994: 195) • PCh **ma* > Ijw *ma* / =*mi*; Mj *ma* (*mi* before *i*, *hi*) (Carol 2014b; Drayson 2009: 139; Carol 2018)

Viegas Barros (2013a: 318) compares the Mataguayan particle with Abipón *m-* ‘polar question marker’ (Najlis 1966: 103).

Hunt 1915: 241; Viegas Barros 2013a: 318 (**me*)

***[ji]má** ‘to sleep’

Mk *[i]ma?* (Gerzenstein 1999: 260) • Ni *[ji]má?* (Seelwische 2016: 175) • PCh **[ʔi]má?* > Ijw *[ʔi]m'á?*; I'w *-máʔa* ‘to sleep’; Mj *[ʔi]m(ʔ)é?* / *-má?* ‘to roam through the forest for game or honey hunting’, *[ʔi]m(ʔ)é-ʔe?* / *-má-ʔa?* ‘to sleep’ (Drayson 2009: 102; Gerzenstein 1983: 148; Carol 2018) • PW **[ʔi]má* > LB *[ʔi]mo*; Vej *[hi]má* [1]; 'Wk *[ʔi]má?* (Nercesian 2014: 209; Gutiérrez & Osornio 2015: 34; Claesson 2016: 239)

[1] Viñas Urquiza (1974: 66) mistranscribes the root as *-ma*.

Viegas Barros (2013a: 306) notes the similarity with Proto-Guaicuruan **-oma* ‘to lie (with)’ (Viegas Barros 2013b, #440), which could be spurious.

Najlis 1984: 10, 18, 41 (**má*, 2 **hl-má*); Viegas Barros 2013a: 306 (**-ma?*)

***máh** ‘go!’

Mk *ma* (Gerzenstein 1999: 259) • Ni *má* (Seelwische 2016: 175) • PCh **má^h* > Ijw *má(h)*; Mj *móh* [1] (Carol 2014a: 86; Drayson 2009: 139; Carol 2018) • PW **máh* > LB *mo* ‘go ahead!’; Vej *mā(h)* [2]; 'Wk *máh* (Nercesian 2014: 284; Viñas Urquiza 1974: 66; Gutiérrez & Osornio 2015: 25; Claesson 2016: 239)

[1] The vowel *ɔ* in Manjui is an irregular reflex of **á*.

[2] Viñas Urquiza (1974: 66) mistranscribes the Vejoz form as *ma*.

Obviously related to Proto-Guaicuruan **mo* ‘you go; go!’ (Viegas Barros 2013b, #385; cf. Viegas Barros 2013a: 305).

Viegas Barros 2013a: 305 (**ma*)

***-má^ʔk**, ***-mhá-j^h** ‘powder, flour’

Ni *-má^ʔk*, *-mxá-j* (Seelwische 2016: 175) • PCh **-mák* > Ijw *-mák*; I'w *wátso-hl-<a>mák* [1]; Mj 3 *hl-<a>mák* [1] (Drayson 2009: 124; Gerzenstein 1983: 168; Carol 2018) • PW **-mók^w*, **-mhó-j^h* [2] > LB *-muq* [3]; Vej *-mok'* [4]; 'Wk *-mók*, *-mó-ç* (Nercesian 2014: 212; Viñas Urquiza 1974: 67; Claesson 2016: 76)

[1] The element *-a-* in Iyo'awujwa' and Manjui is plausibly the same root as PM **-á?* ‘fruit’. The Chorote make use of two plant species, *Prosopis alba* and *Ziziphus mistol*, whose fruit are commonly “ground into flour and sometimes molded into dough to make small cakes or biscuits, which are then cooked” (Arenas & Scarpa 2007: 77, 84, 85).

[2] PW *o is not a known regular reflex of PM *ă.

[3] The final *q* instead of *k*^w in the Lower Bermejeño form could be a mistranscription on Nercesian's (2014) part.

[4] Final *-k*' in Viñas Urquiza's (1974) attestation of the Vejoj reflex could be a mistranscription for *-k*^w.

Likely related to Proto-Guaicuruan *ă'moqo 'powder' (Viegas Barros 2013b, #47; cf. Viegas Barros 2013a: 311). LB *lamuqu* 'manioc' (Nercesian 2014: 52) is clearly borrowed from an unidentified Guaicuruan language, with the semantic development *'powder' > *(manioc) flour' > 'manioc'.

Najlis 1984: 21, 45 (*hmāk'); Campbell & Grondona 2007: 15; Viegas Barros 2013a: 311 (*-maq')

***máxã ~ *máxã 'yellow'**

Mk *ma:xa*, *maxa-m* (Gerzenstein 1999: 259) • PCh *máhã? ~ *máhã? > Ijw *máha?* (Drayson 2009: 139)

***mät [1] 'hither; nearby'**

Mk *met* [1] 'nearby' (Gerzenstein 1999: 260) • PCh *mét 'hither' > Ijw *mét*; I'w *-met*; Mj *mét* [2] (Drayson 2009: 139; Gerzenstein 1983: 121; Carol 2018)

[1] The absence of preglottalization in the coda in PM and in Maká is shown by the attestations of the Maká reflex in the New Testament (e.g. Matthew 14:18).

[2] The Manjui reflex is mistranscribed as *mít* in Carol (2018).

***me(?) ~ *mé(?) [1] 'otter'**

Mk *mi?*(-l) (Gerzenstein 1999: 261) • Ni *me?* (Seelwische 2016: 174) • PCh *mé? > Ijw *mé?* (Drayson 2009: 139)

[1] The dubious status of the word-final glottal stop and of the prosodical properties of the root are due to the absence of a known cognate in Wichí.

***mijó (*-l) 'savannah hawk'**

Mk *mijo* (-l) (Gerzenstein 1999: 261) • Ni *mijo* (-k) 'black-collared hawk' (Seelwische 2016: 174) • PCh *mijó? (*-l) > Ijw *mijó?*; Mj *ʔmijó?* (-l) [1] (Drayson 2009: 139; Carol 2018) • PW *mijóh > LB *miju*; Vej *mijo* 'eagle'; 'Wk *mijóh* 'bird sp.' (Spagarino et al. 2013 [2011]; Gutiérrez & Osornio 2015: 21; Claesson 2016: 250)

[1] The glottalized nasal ʔm in Manjui is irregular.

Possibly related to Proto-Pilagá-Toba *májo 'large bird' (Viegas Barros 2013b, #114; cf. Viegas Barros 2013a: 310).

Viegas Barros 2013a: 310 (*mijo)

***-muk, *-mhu-j^h [1] 'feces'**

Mk *-<i>muk*, *-<i>mhu-j* (Gerzenstein 1999: 201, 253) • Ni (-)<sa>*muk*, (-)<sa>*mxu-j* (Seelwische 2016: 230) • PCh *-<ʔjá>*muk* > Ijw *-ʔjémuk*, *-ʔjému-s*

[2]; I'w -*jémuk* [3]; Mj -*ʔjémuk*, -*ʔjéhmo-j* [2 4] (Drayson 2009: 128; Gerzenstein 1983: 134; Carol 2018) • PW *-<ʔjá>*muk*^w, *-<ʔjá>*mhu-j^h* > Vej -*jamok* [3 4]; 'Wk -*ʔjámuk*, -*ʔjámu-ç* (Viñas Urquiza 1974: 83; Claesson 2016: 57)

[1] In all daughter languages, this root occurs in what looks like obscure, non-analyzable compounds, with the elements Mk -*i*-, Ni -*sa*-, and PCh/PW *-*ʔjá*-.

[2] The plural forms in Iyojwa'aja' and Manjui are non-etymological.

[3] The lack of glottalization in *j* in the Iyo'awujwa' and Vejoz reflexes could be a mistranscription on our sources' part.

[4] The vowel *o*, attested in the Manjui (plural only) and Vejoz reflexes, may be attributed to contamination with reflexes of PM *-*máʔk*, *-*mhá-j^h* 'powder, flour'. The absence of labialization in the stem-final consonant in Vejoz is irregular.

Toba-Qom *jamok* 'feces' (Buckwalter & Buckwalter 2013: 187) lacks known cognates in other Guaicurian languages and is thus likely to be a Wichí loan.

Campbell & Grondona 2007: 15

*[ʔa]ʔmân ~ *[ʔa]ʔmân 'to stay, to be alive'

Mk <*a*>*man* [1] 'to stay, to stop' (Gerzenstein 1999: 119–120) • Ni *mân<ta>* / -*ʔmân<ta>* [2] (Seelwische 2016: 175) • PCh *[ʔa]ʔmân<*hliʔ*> [2 3] > Ijw ʔ*wán-hle-ʔe* 'to stay' [4]; I'w -*mánni-ji* 'to live' [5]; Mj [ʔa]ʔ*mân-hiʔ* 'to be alive', [ʔa]ʔ*mânhi-ʔiʔ* 'to stay'; CAUS *[ʔi]ʔ*mân-it* > Ijw [ʔi]ʔ*mⁱén-it*/ -*mân-it* 'to defend, to cure'; Mj [ʔi]ʔ*m⁽ⁱ⁾én-it*/ -*mân-it* 'to save' (Drayson 2009: 163; Gerzenstein 1983: 148; Carol 2018) • PW *[ʔi]ʔ*má<t>-APPL* 'to stay' [2] > LB [ʔi]ʔ*moʔ-i* 'to be the last'; Vej -*mat-e* [6]; 'Wk [ʔi]ʔ*máʔt-APPL*; CAUS *[ʔi]ʔ*máʔt-t-APPL* > LB [ʔi]ʔ*moʔ-t-^hi* 'to leave, to extract'; 'Wk [ʔi]ʔ*máʔt-t-APPL* (Nercesian 2014: 154, 203, 351; Viñas Urquiza 1974: 67; Claesson 2016: 240–243)

[1] The Maká reflex unexpectedly lacks preglottalization in the root-initial nasal, as attested in the New Testament (Hebrews 4:9; 2 Peter 2:6; John 7:37; John 8:44; 1 John 3:14; Revelations 10:6).

[2] All languages except Maká (and Chorote, in the case of the causative) have fossilized a suffix or a sequence of suffixes starting with **ʔ*.

[3] PCh **a* is not the regular reflex of PM **á*.

[4] Ijw ʔ*w* is not the regular reflex of PCh **m*.

[5] The Iyo'awujwa' form in Gerzenstein (1983: 148) is likely a mistranscription for -*ʔmânhi-ijʔ*.

[6] The vowel *a* in the Vejoz reflex is likely a mistranscription on Viñas Urquiza's (1974) part.

ʔmók (-its) 'creamy-bellied thrush (*Turdus amaurochalinus*)'

Mk *mok* (-*its*) 'kind of zorzal (*Turdus* sp.)' [1] (Gerzenstein 1999: 261) • Ni *mok* (-*is*) (Seelwische 2016: 174) • PCh *ʔ*mók* (*-*is*) > Mj ʔ*mók* (-*is*) 'kind of

zorzal (*Turdus* sp.)' (Carol 2018)

[1] Mk *maq-itax*, *maq-ite-ts* 'creamy-bellied thrush (*Turdus amaurochalinus*)' (Gerzenstein 1999: 259) is obviously indirectly related to this root. It may have been borrowed from Ni *mok-itax*, *mok-ita-s* 'creamy-bellied thrush (*Turdus amaurochalinus*)', though the phonological adaptation pattern remains unaccounted for.

Rejected: Najlis (1984: 13) compares the Nivačle reflex to Vej *woktak'ak* 'cochapoye bird' (Viñas Urquiza 1974: 81) and reconstructs PM **mɔk* ~ **wɔk*, which is problematic from a phonological point of view.

Compare Toba–Qom *mok* 'Podager *facunda*; *Nyctibius griseus*; *Turdus amaurochalinus*' (Cúneo & Porta 2009: 248), which does not reconstruct to Proto-Guaicuruan and is thus a probable loan from a Mataguayan language.

*-náj^h 'to bathe'

Ni [*βa*]náj (Seelwische 2016: 184) • PCh **[ʔi]náj-APPL* > Ijw [*ʔi*]n'éhj-i? / -náj-i? [1]; I'w -náj-i-náhti?; Mj [*ʔi*]n'éhj-ij? / -náj-ij? (Carol 2014a: 93; Gerzenstein 1983: 149; Carol 2018) • PW **[ʔi]náj^h* > LB [*ʔi*]náj; Vej -náj; 'Wk [*ʔi*]náj (Nercesian 2014: 251; Viñas Urquiza 1974: 67; Claesson 2016: 259)

[1] Drayson (2009: 102) mistranscribes this form as [*ʔi*]n'éhj-i / -náj-i.

Viegas Barros (2013a: 306) notes the similarity with Proto-Guaicuruan **-n-ij'ó* 'to wash oneself', which could be spurious.

Viegas Barros 2013a: 306 (**-náj*)

*náwa(?)j(-xi?) 'to boil'

Ni *naβaj-fi* (Seelwische 2016: 183) • PCh **náwahj-ij?* > Ijw *náwahj-i?*; Mj *náwohj-ij?* [1] (Drayson 2009: 140; Carol 2018) • PW **náwaj*, **ná'waj-hi* > LB *nawaç-i*; 'Wk *náwaj?*, *ná'waç-i?* (Nercesian 2014: 48; Claesson 2016: 259)

[1] The unstressed vowel rounding in Manjui is not known to be regular, though it does sometimes happen next to a *w*.

*náwa(?)x 'cactus sp.'

Ni *naβaf(-ik)* 'cactus fruit (ca. 5 cm in diameter and height, its pulp is very good for killing one's thirst)' (Seelwische 2016: 183) • PW **náwaç* 'cactus (*Echinopsis rhodotricha*)' > Southeastern (Salta) *nawaç*; 'Wk *náwax* (Suárez 2014: 234; Claesson 2016: 259)

*-na^ʔx ~ *-ná^ʔx, *-nxá-ts 'nose' [1]

Mk *-ne^ʔx*, *-nex-its* [1] / *-nxe-* (Gerzenstein 1999: 151; Braunstein 1987: 202) • Ni *-na^ʔ*, *-nfa-s* (Seelwische 2016: 177) • PCh **-hná<tVwoh>* [2] > Ijw *-hnátawo(-s)*; I'w *-hnátowu* ~ *-hnátawo* ~ *-hnátowe-* (*-hnátowe-j*); Mj *-hnátowo* (Carol 2014a: 98; Drayson 2009: 119; Gerzenstein 1983: 175, 210; Carol 2018) • PW **-nh<us>*

[1] > LB *-ɲes* (-ej); Vej *-ɲus* (-eɬ) [3]; 'Wk *-ɲus*, *-ɲús-eɬ* (Nercesian 2014: 161; Gutiérrez & Osornio 2015: 60; Claesson 2016: 79)

[1] The Maká plural is non-etymological. The presence of a preglottalized coda in the singular form is inferred based on the Nivaçle cognate; this form is otherwise not attested in our sources that distinguish between plain and preglottalized stops, such as UNICEF & Tekombo'e ha Tembikuaa Motenondeha (2022) and the New Testament.

[2] The Chorote and Wichí words are obscure compounds involving PM **-nxa-*.

[3] Viñas Urquiza (1974: 69) documents this root as *-nus* in Vejoz, which must be a mistranscription on her part.

***-ná(?) ~ *-ná(?) (*-wot) 'father'**

Mk (Lengua doculect) <inà> 'my father', <sanã> 'father' (Peña 1898: 488) • Ni *-ná-βot* 'parents' (Seelwische 2016: 202) • PCh **-náʔ*, **-ná-wot* > Ijw *-náʔ*, *-wot*, *-jis*; I'w *-náʔ* (-wot); Mj *-náʔ* (Carol 2014a: 101; Drayson 2009: 124; Gerzenstein 1983: 149; Carol 2018)

***néwo(?)k 'wild manioc (*Marsdenia castillonii*)' [1]**

Ni *noβok*, *noβxo-j* (Seelwische 2016: 198) • (?) PCh **nʷák* [2] > Ijw *niwák*, *-iwa*; (?) I'w *náwas'uk* ~ *náwis'uk*; (?) Mj *náwasuk* ~ *náwasek* ~ *náwosuk* (Drayson 2009: 141; Scarpa 2010: 189; Carol 2018) • PW **néwokʷ* > LB *newukʷ*; Southeastern (Salta) *newuk*; Vej *newok*; 'Wk *néwok* (Spagarino 2008: 60; Suárez 2014: 189; Gutiérrez & Osornio 2015: 18; Claesson 2016: 265)

[1] Maká *jowek* 'wild manioc' (Braunstein 1987: 80) is hardly related.

[2] The Chorote forms are entirely irregular and are probably a result of horizontal transmission by the way of non-Mataguayan languages. The Proto-Chorote form is tentatively reconstructed here based on the Iyojwa'aja' datum; the other two varieties point rather to **náwV(i)s-uk* ~ **-á-*.

Viegas Barros (2013a: 300) notes the similarity with Proto-Guaicuruan **nawjék* 'kind of tuber (similar to manioc)' (Viegas Barros 2013b, #396) and attributes it to language contact.

Viegas Barros 2013a: 300

***(-)niják, *(-)nijhá-jʰ 'rope, cord'**

Mk *(-)nijak*, *(-)nijha-j* (Gerzenstein 1999: 275) • Ni *-niják*, *-nijxá-j* (Seelwische 2016: 198) • PCh **niják*, **nijhá-jʰ* > Ijw *nejak*, *nehja-ʔ* ~ *nehja-ʔl* [1]; (?) I'w *-jék*, *-hjé-j* [2]; (?) Mj *-(ʔi)jík*, *-ʔihjí-jh* [2] (Drayson 2009: 141; Gerzenstein 1983: 133; Carol 2018) • PW **nijákʷ*, **nijhá-jʰ* > LB *nijokʷ*, *niço-j*; Vej *nijak*; 'Wk *niják*, *níčâ-ç* (Nercesian 2014: 192; Viñas Urquiza 1974: 68; Claesson 2016: 273)

[1] The plural variant *nehja-ʔl*, attested in Drayson (2009: 141), is non-etymological. The word-final glottal stop in the variant *nehja-ʔ* is likewise irregular, but there are other cases where the plural suffix **(a)jʰ* yielded Iyojwa'aja' *-(a)ʔ* (e.g. in the participles).

[2] The Iyo'awujwa' and Manjui forms are not the expected reflexes of PM **(-)nijāk*, **(-)nijhâ-j*.

[3] The vowel *a* (as opposed to *â*) in Vejoz must be a mistranscription on Viñas Urquiza's (1974) part.

Najlis 1984: 18 (**nejāwk*); Campbell & Grondona 2007: 15 (“diffused”), 21

***-nji^ox ‘smell’**

Mk *-nji^ox* [1], *-njix-its* (Gerzenstein 1999: 151) • Ni *-niʃ* (Seelwische 2016: 190) • PCh **-nîh* > Ijw *-néh*; I'w *-né* (*-hes*); Mj *-néih* (Carol 2014a: 71; Drayson 2009: 124; Gerzenstein 1983: 150; Carol 2018) • PW **-niχ*, **-nh-ís* > LB *-niχ*; 'Wk *-nix*, *-ñ-ís* (Nercesian 2014: 202; Claesson 2016: 78)

[1] The presence of a preglottalized coda in the Maká singular form is inferred based on the Nivaçle cognate; the singular form is not attested in our sources that distinguish between plain and preglottalized stops.

Obviously related to Proto-Guaicuruan **-(^o)nik* ‘smell; bad smell’ (Viegas Barros 2013b, #405; cf. Viegas Barros 2013a: 311).

Najlis 1984: 31 (**nehn*); Viegas Barros 2002: 143 (**(V)nix*); Viegas Barros 2013a: 311 (**(a)nih*)

***ñk'a ‘new, recently’; *ñk'a-jik, *ñk'a-jh-its (fem. *ñk'a-jk-eʔ) ‘new’**

Mk *i'nk'a* ‘recently’; *i'nk'a-jik*, *i'nk'a-jh-its* (fem. *i'nk'a-jk-iʔ*, *i'nk'a-jk-i-j*) ‘new’ [1] (Gerzenstein 1999: 203–204) • Ni *nitʃa* (*-k*) ‘new’; *nitʃa-jik* ‘young, boy’ (fem. *nitʃa-jik-eʔ*, *nitʃa-jik-ej*) (Seelwische 2016: 188–189; Fabre 2014: 110) • PCh **ñk'áʔ* > Ijw *ʔinkʲéʔ* ‘new’; I'w *inkʲéʔ* ‘new’; Mj *(ʔin)kʲéʔ*; PCh **ñk'á-jik*, **ñk'á-hj-is* (fem. **ñkʲá-jk-eʔ*) > Ijw PL *ʔinkʲé-hj-is*; Mj *ʔinkʲé-jik*, *ʔinkʲé-hj-is* (fem. *ʔinkʲé-jf-iʔ*) (Drayson 2009: 109; Gerzenstein 1983: 131; Carol 2018) • PW **nekʲa* / **nékʲa* ~ **nekʲe* / **nékʲe* [2] ‘recently, just now’ > LB *netʃa* ~ *netʃe*; Vej *netʃe* [3] ‘already’; 'Wk *nekʲeʔ* / *nékʲeʔ* ‘new, recently, just now’; **nékʲa-jik*, **nékʲa-jh-is* ~ **nékʲe-jik*, **nékʲe-jh-is* [2] ‘new’ > LB *netʃa-jik*; Vej *netʃa-jek* [3] ‘new’; 'Wk *nekʲe-jik*, *nekʲe-ç-is* (Nercesian 2014: 297; Viñas Urquiza 1974: 68; Gutiérrez & Osornio 2015: 8; Claesson 2016: 263–264)

[1] Maká *a* is not the expected reflex of PM **a*. The preglottalization in *ʔn* is attested in the New Testament (e.g. Galatians 6:15).

[2] The Wichí reflex shows an irregular reflex of the vowel of the initial syllable and an irregular dialectal variation in the second syllable (*a* ~ *e*).

[3] The plain *tʃ* in Viñas Urquiza's (1974) attestation of the Vejoz root must be a mistranscription.

***ñnä^ok / *-nnä^ok ‘spoon’**

Mk *nene^ok* [1], *nenek-its* ‘spoon, bivalve’ (Gerzenstein 1999: 272) • PW **<ʔ>nnek* [2] > LB *lanek*; Vej *lenek*; 'Wk *la(n)nek*, *la(n)nék-is*; **-<qá>nnek* [3]

> Vej *-kanek*; 'Wk *qannek, qanŋ-aç / -qá-nnek, -qá-nŋ-aç* (Nercesian 2014: 40; Viñas Urquiza 1974: 61; Gutiérrez & Osornio 2015: 51; Claesson 2016: 86, 218)

[1] The preglottalized coda in the Maká reflex is attested in Braunstein (1987: 69).

[2] PW **-t̥-nnek* is a fossilized third-person form of the erstwhile relational stem (PM **-nnäk*).

[3] PW *-qá>nnek* is a fossilized alienized form of the erstwhile absolute stem (PM **ñnäk*).

Viegas Barros (2013a: 301) claims that Abipón *-enenk* 'spoon' (Najlis 1966: 65) is a Mataguayan loanword.

Viegas Barros 2013a: 301 (**-anek*)

***(-)nú(?) (*-ts) [1] 'bone'**

Mk *-nu* [2] (*-ts*) 'bone, stalk' (Gerzenstein 1999: 152, 250) • Ni *-nu?* (-s) [3] (Seelwische 2016: 203) • PW **nú(?)* > LB *ne(?)*; Vej *nu*; 'Wk *nú?* (*-lis*) (Braunstein 2009: 52; Viñas Urquiza 1974: 69; Claesson 2016: 278)

[1] The plural form is reconstructed based on Maká *-nu-ts* and Nivaçle *-nu-s*; it is thus technically reconstructible only for Proto-Maká-Nivaçle (if one accepts the binary split hypothesis). The 'Weenhayek reflex does not match it.

[2] The absence of a final ? in the Maká singular form is unexpected.

[3] Campbell et al. (2020: 515) document absolute *nu?* and relational *-β-nu?* for Nivaçle.

Najlis 1984: 33 (**hnu* 'shoulderblade')

***nú?uh, *nú?u-ts 'dog'**

Ni *nu?u* (-s) 'dog; black-winged stilt' (Seelwische 2016: 205) • PCh **nú?uh* (*-s) > I'w *nówu* ~ *nóo* ~ *núu* (-s); Mj *nó?u* (-s) (Gerzenstein 1983: 151, 214; Carol 2018)

Rejected: Najlis (1984: 38) includes reflexes of Wichí **hó?oh* 'rooster' (mistranscribed as *ōo* ~ *ōu*), which is impossible both for semantic and phonological reasons.

Najlis 1984: 18, 38 (**nu-o* ~ **noo*)

***ñ-xáte? (*-l) ~ *ñ-xáti? [1] 'dream, sleepiness'**

Mk *-nixati?* (-l) 'dream'; [*ni*]xati-ju? 'to be sleepy' (Gerzenstein 1999: 385) • Ni *-nxáte* (-k) 'dream' (Seelwische 2016: 191–192) • PCh **ñhnáti?* 'dream' > Ijw *ñhn'éti* [2]; I'w *ihn'éti?* (Drayson 2009: 98; Gerzenstein 1983: 133) • PW **naháti* 'dream; sleepiness' > Vej *nahate, nehat^hi-ñilân* 'to be very sleepy' [3]; 'Wk *naháti?* (Viñas Urquiza 1974: 67; Gutiérrez & Osornio 2015: 38; Claesson 2016: 253)

[1] Maká and Nivaçle point to **ñ-xáte?* (*-l), Chorote and Wichí to **ñ-xáti?*. The stem-initial **ñ-* must have been a prefix; its reflex *ni-* is still segmentable in Maká.

[2] The absence of the stem-final glottal stop in Iyojwa'aja' is unexpected.

[3] The Vejoz reflex is attested as *nahate* by Viñas Urquiza (1974) and as *nehat^hi-ñilân* by Gutiérrez & Osornio (2015). The expected form would be **nahati*.

Possibly related to Proto-Guaicuruan **-eʔot'é* ‘to sleep’ (Viegas Barros 2013b, #256; cf. Viegas Barros 2013a: 305).

Viegas Barros 2013a: 305 (**-hʌteʔ* ~ **-hʌtiʔ* ‘to be sleepy’)

***[ji]nxiʷän ‘to smell’ [1]**

Mk [ji]nxiʷen [2] (Gerzenstein 1999: 152) • PCh **[ʔi]hniʷen* > Ijw [ʔi]hniʷiʷn / -hnéʷiʷn; Iʷw -hnéwin-e; Mj [ʔi]hniʷen / -hneíʷen (Drayson 2009: 98; Gerzenstein 1983: 175; Carol 2018)

[1] This verb is probably a compound of **-njiʷx* ‘smell’ and [ji]ʷän ‘to see’.

[2] The preglottalized onset of the root-final syllable in Maká is attested in the New Testament (e.g. 1 Corinthians 12:17).

***-nX₂₃aqát ~ *-nX₂₃aqʷát [1] ‘to snore’ [2]**

Ni [ta]nxakát (Campbell et al. 2020: 242) • PCh **[ʔi]hnâqʷát* [2] > Ijw [ʔi]hnʷákʷat / -hnákʷat; Iʷw -hnakát [1]; Mj [ʔi]n(i)éʔát / -naʔát [3] (Drayson 2009: 98; Gerzenstein 1983: 175; Carol 2018)

[1] Nivaçle points to PM **q* and Chorote to **qʷ* (except for the Iyoʷawujwaʷ form as attested by Gerzenstein 1983, but this must be a mistranscription).

[2] This etymon is obviously derived from PM **-naʷx* / **-nxa-* ‘nose’.

[3] The Manjui form in Carol (2018) is attested with a root-initial *n-* and not the expected **hn-*. This is also the case in Hunt’s (1994) vocabulary). However, the expected form with *hn-* is found in early unpublished Carol’s field notes.

***-nX₂₃átâʔ ‘nasal mucus’ [1]**

Ni -nxtâʔ (-j) (Seelwische 2016: 190) • PCh **-hnát<ijah-PL>* [1] > Ijw -hnátihje-s; Iʷw -hnátije-j; Mj -hnátije-el (Drayson 2009: 119; Gerzenstein 1983: 175; Carol 2018)

[1] This etymon is obviously derived from PM **-naʷx* / **-nxa-* ‘nose’.

[2] Chorote appears to have fossilized a nonproductive suffix here.

***ʷnáʎu(h), *ʷnáʎu-ts ‘day, world’**

Mk neʎu (-ts) (Gerzenstein 1999: 271) • Ni naʎu (-s) (Seelwische 2016: 179) • PCh **ʷnáhl<ekis>* ~ **ʷnáhl<ekes>* ‘midday’ [1] > Ijw ʷnáhlikis; Mj ʷnáhlekis (Drayson 2009: 162; Carol 2018)

[1] Chorote appears to have fossilized a nonproductive suffix here.

Rejected: Gutiérrez (2015b: 254) includes Ijw/Iʷw *hlóma* into the comparison, which is better understood as a reflex of PM **ʎúmʔa*.

Likely related to Proto-Guaicuruan **nalóʔ* ‘natural light, day, sun’ (Viegas Barros 2013b, #388). Viegas Barros (2013a: 312) compares it to Proto-Guaicuruan **ʔal'éwa* ‘earth’ instead, which is hardly convincing.

Viegas Barros 2013a: 312 (**aʎu*); Gutiérrez 2015b: 254

***(-)ʔnáji x, *(-)ʔnájx-aj^h ‘path’**

Ni *nájif*, (-) *nájf-aj* / -ʔ*nájiʔ* (Fabre 2014: 318; Seelwische 2016: 202) • PCh *(-)ʔ*nájih*, *(-)ʔ*nájh-aj^h* > Ijw (-)ʔ*náji*, (-)ʔ*nájh-a(?)* [1]; Iʼw *náji*, *nájh-éh* [2]; Mj ʔ*náji*, ʔ*nájh-eej* [3] (Drayson 2009: 162; Gerzenstein 1983: 149; Carol 2018) • PW *(-)ʔ*nájix*, *(-)ʔ*nájh-aj^h* > LB (-)ʔ*nojix*; Vej *nájh* ~ *nájih*, *nájhâj* ~ *nájhaj* [4]; ʼWk (-)ʔ*nájix*, (-)ʔ*nájç-aç* (Nercesian 2014: 40, 164; Viñas Urquiza 1974: 68; Gutiérrez & Osornio 2015: 43; Claesson 2016: 53, 55)

[1] The plural form -ʔ*nájh-a* is attested by Drayson (2009: 162), whereas in our data the irregular reflex (-)ʔ*nájh-a?* is attested. There are other cases where the plural suffix *-(a)j^h yielded Iyojwaʼajaʼ - (a)? (e.g. in the participles and in Ijw *néhja-?* ‘cords, ropes’).

[2] The plain *n* in Gerzenstein’s (1983) attestation of the Iyoʼawujwaʼ reflex must be a mistranscription. The stress on the suffix in the plural form does not match what is found in other Chorote varieties and ʼWeenhayek.

[3] The plural suffix found in Manjui is irregular (one would expect *ʔ*nájh-ej*).

[4] The forms attested in Vejoz are somewhat unexpected. The regular reflex would be *ʔ*nájih*, *ʔ*nájh-aj*.

This root resembles Proto-Qom *<*n*>*aʔdíç* ‘path’, whose initial consonant is claimed by Viegas Barros (2013b) to have been fossilized to the root after the split of Proto-Guaicuruan (compare Proto-Guaicuruan **-aʔdíko* ‘path’; Viegas Barros 2013b, #4). If PM *(-)ʔ*nájix*, *(-)ʔ*nájh-aj^h* is related to the Guaicuruan root, it should be explained as a borrowing from Southern Guaicuruan; alternatively, PM *ʔ*n* could continue an erstwhile fossilized prefix (in this case, the Mataguyan and Guaicuruan material could be cognate).

Najlis 1984: 10, 31, 48 (**najehn*); Viegas Barros 2002: 143 (**nájix*)

***ʔ*njánxte?* ‘chacoan mara (cavy), tapeti’**

Mk *nijaxti?* (-*l*) (Gerzenstein 1999: 278) • Ni *nánxate* (-*j*) ‘chacoan cavy, tapeti, (?) guinea pig’ (Seelwische 2016: 200) • PCh *ʔ*nájhâte?* (*-*wa?*) > Ijw ʔ*náhate*, ʔ*náhate-wa?* [1]; Iʼw *náate?* (-*j*); Mj ʔ*náate?* (-*wa?*) (Drayson 2009: 162; Gerzenstein 1983: 149; Carol 2018) • PW *ʔ*náte* > LB *note*; Vej *nâte* ~ *inâte* ~ *hnâte* (-*ajis*); ʼWk ʔ*inâte?* ‘tapeti’ (Nercesian 2014: 48; Viñas Urquiza 1974: 57; Gutiérrez & Osornio 2015: 20, 22; Claesson 2016: 31)

[1] The absence of a word-final glottal stop in Drayson’s (2009) attestation of this noun must be a mistranscription.

***-ó (*-*l*) ‘penis’**

Ni -*o?* (-*k*) ‘glans’ (Seelwische 2016: 206) • PCh **-ó?* (*-*l*) > Ijw -*ó?*; Mj -*ó?* (-*l*) ‘penis’ (Drayson 2009: 132; Carol 2018) • PW **-t-ó* (*-*l^h*) > LB -*t-u*; Vej -*t-o*; ʼWk -*t-ó?* (-*č*) (Nercesian 2014: 213; Viñas Urquiza 1974: 66; Claesson 2016: 75)

***-óʔ (*-jʰ) ‘seed’ [1]**

Mk 3 *t-oʔ* (-j) (Gerzenstein 1999: 255) • PCh *-óʔ > Ijw -óʔ (Drayson 2009: 132)
 • PW *-t-óʔ (*-jʰ) > LB -t-uʔ; Vej -t-o-j; 'Wk -t-óʔ (-ç) (Nercesian 2014: 212; Viñas Urquiza 1974: 66; Claesson 2016: 75, 236)

[1] In Maká, Iyojwa'aja', and in the 'Weenhayek compound *tútsex-t-oʔ* (-ç), this stem also means 'bullet', which must be a postcolonial semantic extension.

Campbell & Grondona 2007: 19

***[t]páʔj ‘to be bitter’**

Ni [t'a]páʔj (Seelwische 2016: 284) • PCh *páhj-iʔ / *-páj- > Ijw *páhj-iʔ*, CAUS *ʔi-p'áhj-et-iʔ*; I'w -páhj-i [1] (Drayson 2009: 109, 143; Gerzenstein 1983: 154) • PW *[t]páʔj [2] > LB [ta]paj 'bitter, sour'; Vej -paj; 'Wk [t(a)]páʔj (Nercesian 2014: 98; Braunstein 2009: 56; Viñas Urquiza 1974: 70; Claesson 2016: 370)

[1] The absence of a final ʔ in Gerzenstein's (1983) data of Iyo'awujwa' must be a mistranscription.

[2] PW *a is not a regular reflex of PM *á (the reconstruction of *á is unequivocally supported by the Nivačle reflex and by the Iyojwa'aja' causative [ʔi]p'áhj-eti 'makes bitter', as opposed to *[ʔi]p'éhj-eti; Drayson 2009: 109).

Najlis 1984: 17 (*pá-áj)

***-páʔláʔ ‘bracelet’ [1]**

Mk (-paʔlaʔ) (-j) [2] (Gerzenstein 1999: 293) • Ni -páʔkláʔ (-s) (Seelwische 2016: 221) • PCh *-páʔláʔ > Ijw -páʔlaʔ [3]; I'w -páʔlaʔ (Drayson 2009: 124; Gerzenstein 1983: 154)

[1] This etymology has been first identified by Campbell (submitted). The stem is obviously derived from PM *-láʔ ~ *-lájʔ 'adornment'.

[2] The presence of a preglottalized sonorant in Maká is inferred based on the Nivačle and Iyojwa'aja' cognates; the form is not attested in our sources that distinguish between plain and preglottalized codas, whereas Gerzenstein (1999) gives simply *palaʔ* (she does not otherwise distinguish between *l* and *ʔl*).

[3] Drayson (2009) actually gives the form -páʔla, which we assume to be a mistranscription. Campbell submitted (*-paʔla)

***pánhajex ~ *pánhájex ~ *pánhajéx [1] ‘neotropic cormorant’**

Mk *panhejaχ*, *panheji-ts* (Braunstein 1987: 54; Gerzenstein 1999: 294) • PCh *pánhajah ~ *pánhájah ~ *pánhajáh [1] > Ijw *pahnaji* [1] (Drayson 2009: 124)

[1] The position of the stress in PM and PCh is unknown, since the Iyojwa'aja' reflex is unattested in our data, and Drayson (2009) does not indicate the position of the stress.

***-páʔs ~ *-páseʔt [1] ‘lip’**

Mk -paʔs [2], -p(a)s-its (Gerzenstein 1999: 294) • Ni -páseʔt, -páste-s 'upper lip' (Seelwische 2016: 222) • PCh *-pásat ~ *-pását 'lip, beak' > Ijw -páxsat,

-pásta-Ø; I'w *-páxsat*, *-páxsat-ej* ~ *-pásta-j*; Mj *-páxsat* (Drayson 2009: 124; Gerzenstein 1983: 155; Carol 2018) • PW **-páset*, **-páste-j^h* > LB *-poset* 'lip, beak'; Vej *-páset*, *-páste-j* [3]; 'Wk *-páset*, *-páste-ç* (Nercesian 2014: 132; Gutiérrez & Osornio 2015: 61; Claesson 2016: 79)

[1] The original root must have been **-pá's* (preserved only in Maká). PM **-páse't* is an opaque derivative reflected in all languages other than Maká.

[2] The preglottalized coda in the Maká reflex is attested in the New Testament in the form *ʔa-pa's* 'ship's bow' (Acts 27:30; Acts 27:41).

[3] Viñas Urquiza (1974: 70) mistranscribes the Vejoz reflex as *-paset*. Campbell & Grondona 2007: 19

***-pát ~ *-pát 'to shuck'**

Ni *[t]pát-xan*, *[n(i)]pát-a?* (Seelwische 2016: 194, 279) • PCh **[ʔi]pát* 'to shake off' > Ijw *[ʔi]p'át* / *-pát*; Mj *[ʔi]p(ʔ)ét* / *-pát*; **[ʔi]pát-ʔe?* 'to shuck' > Ijw *[ʔi]p'át-e* / *-pát-e*; Mj *[ʔi]p(ʔ)ét-e?* / *-pát-e?* (Drayson 2009: 109, 110; Carol 2018)

Viegas Barros (2013a: 310) compares the Mataguayan term to Proto-South Guaicuruan **-petá* 'grain, seed'. We find the comparison with Proto-Qom **[ʔi]pot* 'to touch', with reflexes in Mocoví and Qom, more promising.

Viegas Barros 2013a: 310 (**-pata?*)

***pátse(ʔ)χ 'fast, quick'**

Ni *pátsex*, *pátse-s* (Seelwische 2016: 222) • PCh **(-)pásah* > Ijw *pánsa*, *páns-is* [1]; I'w *[a]páxsa*; Mj *[ʔa]páxsa* (Drayson 2009: 143; Gerzenstein 1983: 78, 155; Carol 2018)

[1] The nasal consonant in the Iyojwa'aja' reflex is entirely irregular.

***páttséχ [1] 'jabiru'**

Ni *pátséχ (-is)* (Seelwische 2016: 222–223) • PCh **pátśáh* [1] > Ijw *pi(t)śáh* ~ *pasáh* [1]; I'w *pisáh (-as)*; Mj *pisáh*, *pisá-as* (Carol 2014a: 99; Drayson 2009: 143, 144; Gerzenstein 1983: 155; Carol 2018) • PW **pátśáχ* > LB *putsáχ* [2]; 'Wk *pátśáχ* (Nercesian 2014: 41, 47; Spagarino et al. 2013 [2011] [2011]; Claesson 2016: 286)

[1] The cluster PM **tts* > PCh **ts* is reconstructed based on the Iyojwa'aja' subdialectal variant *pitsáh*. Note that Chorote has no affricate /ts/, suggesting that we are dealing here with a cluster composed of /t/ and /s/.

[2] The vowel of the first syllable is reflected irregularly in Lower Bermejeño Wichí as *u*, a development also seen in LB *puláχ* 'brown cachalote'.

Najlis 1984: 28, 49 (**pajtsha*); Viegas Barros 2002: 143 (**pajtsax*)

***pütóχ ‘to be deep’**

Ni [ʔa]patox (Seelwische 2016: 46) • PCh *-pítohw<ijʔ> > Iʔw -pétʔofʔiʔ; Mj -péitihwijʔ (Gerzenstein 1983: 155; Carol 2018) • PW *pitóχ^w > LB pituf^w [1]; Vej pitoh [1]; ʔWk pitóχ^w (Nercesian 2014: 335; Viñas Urquiza 1974: 70; Claesson 2016: 293)

[1] The final consonant is documented as a non-labialized χ in Lower Bermejeño (Braunstein 2009: 54) and Vejoz (Viñas Urquiza 1974: 70), possibly as a result of mistranscription.

Najlis 1984: 19 (*pajtho)

***-pe(ʔ), *-pé-l ‘fat, oil’**

Ni -<a>peʔ(-k) ‘oil’ (Seelwische 2016: 164) • PCh *-péʔ(*-l) > Ijw -péʔ; Iʔw -péʔ; Mj -<i>péʔ(-l) ‘fat, oil’ (Drayson 2009: 124; Gerzenstein 1983: 155; Carol 2018) • PW *-pe(ʔ) > LB -pe(ʔ); Vej <a>pe; ʔWk -peʔ (Braunstein 2009: 54; Viñas Urquiza 1974: 51; Claesson 2016: 219)

Possibly related to Proto-Guaicuruan *-apijō ‘fat’ (Viegas Barros 2013b, #60; cf. Viegas Barros 2013a: 308).

Fabre (2014: 307) compares the Nivaçle reflex to Enlhet, Enenlhet-Toba, Angaité, Enxet, Guaná pełmok ‘fat’ (Unruh & Kalisch 1997: 550; Unruh et al. 2003: 335; Wheeler 2020: 46; Elliott 2021: 193; Kalisch 2023: 51), but this is likely an accidental similarity.

Viegas Barros 2013a: 308 (*apeʔ)

***[ʔi]péʔj-aʔ (antipassive: *[t]péʔj-käj) ‘to hear, to understand’**

Mk [j]<e>piʔj<eʔ> [1] (Gerzenstein 1999: 154) • Ni [ʔi]peʔj-a ([t]peʔj-tʔaj) (Seelwische 2016: 278, 349) • PCh *[ʔi]péʔj-aʔ (*[tʔ]péj-kejʔ) > Ijw [ʔi]piʔj-aʔ / -péʔj-aʔ [2] ([ti]pé-tʔiʔ); Iʔw -péʔj-eʔ ~ -péj-iʔ (-péj-siʔ); Mj [ʔi]piʔj-aʔ / -péʔj-aʔ ([ti]péj-fi(j)ʔ) (Drayson 2009: 110; Gerzenstein 1983: 155, 197; Carol 2018)

[1] The glottalized palatal approximant in the Maká reflex is attested in the New Testament (e.g. John 3:32).

[2] Mistranscribed as [ʔi]piʔj-a / -péʔj-a in Drayson (2009: 110).

***péła(ʔ)j, *pełaj-its [1] ‘rain’**

Mk píłej (-its) (Gerzenstein 1999: 297) • PCh *péhłajʔ > Ijw péhłaʔ ‘rain season’, péhła ‘rainstorm, rain’; Iʔw péhłaj<i> (-s); Mj péhłijʔ (Drayson 2009: 143; Gerzenstein 1983: 155; Carol 2018) • PW *péłaj^h(*-is) [1] > LB pełaj (-is) ‘rainstorm’; Vej pełaj, pełaj^h-is ‘rainstorm, rain’; ʔWk péłaç (-is ~ péłaj-is) (Nercesian 2014: 161, 343; Gutiérrez & Osornio 2015: 44; Claesson 2016: 292)

[1] PW *-aj^h, reconstructed based on the Vejoz and ʔWeenhayek reflexes, does not correspond to PCh *-ajʔ (underlying: */-aj/). The root must have been remodeled based on the plural suffix *-j^h.

***-phaʔt [1] ‘to wrap, to bind, to tie’**

Mk [ji]<xu>pheʔt ‘to wrap’, [j]<o>pheʔt / -<ʔo>pheʔt ‘to tie’ [2] (Gerzenstein 1999: 283, 394) • Ni [ji]<klâ>pxat ‘to wrap up, to roll up’, [j]ako-pxat ‘to embrace with one’s legs around’, [ji]<ta>pxat ‘to hobble legs, to bind hands’, [ji]<tse>pxat ‘to sew’, [j]<etfe>pxat ‘to hug’ (Seelwische 2016: 36, 120, 122, 257, 293; Campbell et al. 2020: 320) • PCh *[ʔja]<qa>pat-APPL > Ijw [ʔja]qapahl-a-ʔni ‘to wrap’, [ʔja]qapahl-at-kʔiʔ ‘to wrap, to fold’, [ʔja]qapahl-e ‘to gather’ [3]

[1] This morpheme can be alternatively described as a verbal root that requires an incorporated object or as a suffix with a highly lexical meaning. Campbell et al. (2020: 320) identify its reflex as a suffix that “appears to involve, loosely, a sense of ‘binding’”.

[2] The morpheme-final consonant in Maká is attested as preglottalized in the New Testament (Acts 1:16; Acts 5:6; Acts 21:33; Acts 25:14; Matthew 14:3; Matthew 18:30; Matthew 23:4; Matthew 27:2; John 18:12; Luke 3:20; 2 Corinthians 3:17).

[3] We are unsure which syllable in the Iyojwa’aja’ reflex is stressed. We cannot exclude at present that *pahlát* ‘all’ is related; the semantic link would be ‘to bind’ > ‘to gather’ > ‘together’ > ‘all’.

***pháʔm ‘up’**

Mk -phaʔm (Gerzenstein 1994: 118; UNICEF & Tekombo’e ha Tembikuaa Mote-nondeha 2022: 7) • PCh *pʰháʔm > Ijw *piháʔm*; Iʔw -én-<i>fʷóm ‘to hang’; Mj <ʔa>húʔm / -<ʔá>huʔm / húʔm [1] (Drayson 2009: 144; Gerzenstein 1983: 127; Carol 2018; own field notes) • PW *-pʰá [2] > LB -pʰo; Vej -pʰá; ʔWk -pʰáʔ; *pʰám-téle (*-jʰ) ‘the one from upriver’ > LB *pʰom-téle-j*; ʔWk *pʰám-téleʔ* (-ç) (Nercesian 2014: 27, 149; Gutiérrez & Osornio 2015: 34; Claesson 2016: 302)

[1] The Iyo’awujwa’ and Manjui reflexes are entirely irregular.

[2] The loss of *m in the Wichí directional suffix is irregular. It resurfaces in the derivative for ‘the one from upriver’.

***[t]píl [1] ‘to return hither’**

Mk [t(e)]píl ‘to return from a specified place’ (Gerzenstein 1999: 296) • Ni ChL [t(a)]pek [1], ShL [t(a)]pik (Stell 1987: 498; Seelwische 2016: 178) • PW *[t]pílh > LB [t(a)]píł ‘to return to one’s destination’; Vej -píl ~ -píł; ʔWk [t(a)]píł / [t(a)]píl-APPL / [t(a)]píñ-APPL (Nercesian 2014: 289, 308; Viñas Urquiza 1974: 70; Gutiérrez & Osornio 2015: 39; Claesson 2016: 371)

[1] The Chishamnee Lhavos Nivaçle form with *e* is irregular. Shichaam Lhavos preserves the etymological vowel *i*.

[2] PM *[w]ápil ‘to return thither’ is an obvious derivative of this root.

Obviously related to Proto-Guaicuruan *-opʔil ‘to return’ (Viegas Barros 2013b, #443).

Campbell & Grondona 2007: 22; Gutiérrez 2015b: 253

***pínu?** ‘kind of honey’ [1]

Mk *pinu?* (-l) ‘small black bee, stings lightly, makes its nest inside tree trunks, produces small amounts of edible honey’; *te-qe-pinu?* (-l) ‘sugar, sugarcane’ (Gerzenstein 1999: 250, 297) • PW **pínu* > LB *pini* ‘llana bee, honey’ [2]; Vej *pinu* [2] ‘sugarcane’, *pinu* ‘wet-es’ ‘apiary; sugar mill’; ‘Wk *pínu?* (Nercesian 2014: 41, 178; Viñas Urquiza 1974: 70; Gutiérrez & Osornio 2015: 52; Claesson 2016: 292)

Rejected: Iyojwa’aja’ *pini?* (-’l) ‘kind of insect’ (metaphorically also ‘spirit’, since the Chorote believe that the *pini?* gets inside humans and possesses them) does not regularly correspond to the reflexes of PM **pínu?*. From a phonological point of view, it could be a loan from Southeastern Wichí, but this possibility is unlikely for geographic reasons, and the semantic discrepancy does not speak in favor of the loan etymology either.

[1] Both in Maká and Wichí, reflexes of PM **pínu?* or their derivatives are used to designate a kind of bee (or its honey) and sugarcane. Since sugarcane is not native to the Americas and therefore cannot have been known to the speakers of Proto-Mataguayan, we assume that Maká and Wichí have extended the name of a type of honey to sugar.

[2] Lower Bermejeño *i* is not the regular reflex of PW **e*; **pine* would be expected.

[3] Viñas Urquiza (1974: 70) mistranscribes the Vejoj reflex as *pinnu*.

Hunt 1915: 239

***pi(t)sta?** ‘masked gnatcatcher’

Ni *pista?* (-k) [1] (Seelwische 2016: 219) • PCh **pístV-ke?* [2 3] > Ijw *pést’o-ki?* [3 4] (Drayson 2009: 143) • PW **písta* > LB *pista*; ‘Wk *písta?* (Spagarino et al. 2013 [2011]; Claesson 2016: 293)

[1] The Nivačle reflex is irregular in that deglottalization failed to apply to the stem-final ?.

[2] The Chorote form seems to contain a feminine suffix.

[3] The vowel *o* in Iyojwa’aja’ is not the regular reflex of PM **a*. It is unknown whether the irregular change occurred in the individual history of Iyojwa’aja’ or before the desintegration of Proto-Chorote.

[4] Drayson (2009) transcribes this as *pést’oki*; we assume that this is a mistranscription for *pést’oki?*.

***pitéχ, *pité-ts** ‘long’

Ni *pitex*, *pite-s* (Seelwische 2016: 219) • PW **pitáχ*, **pité-s* > LB *pitax*; ‘Wk *pitáχ*, *pité-s* (Nercesian 2014: 312; Viñas Urquiza 1974: 70; Claesson 2016: 293)

***[t]pó?, *[t]pó?-ex** ‘to be full’

Mk *[to]po?-ox*, PL *[to]po-l-ix* (Gerzenstein 1999: 284) • Ni *[ta]po’-x*, *[ta]po?-in*; *[ji]ka-po* ‘to have one’s container full’ (Seelwische 2016: 257) • PCh **[t’]pó?*, **[t’]pó-eh* > Ijw *[ti]pó?-ji*; Mj *[ta]pó?*, *[ta]pów-e* (Drayson 2009: 151; Carol 2018)

• PW *[t]pó-jex > LB [ta]pu-jex; Vej -po-jeh; 'Wk [t(a)]pó-jex, PL [t(a)]pó-ke? (Braunstein 2009: 56; Nercesian 2014: 56; Viñas Urquiza 1974: 70; Claesson 2016: 372)

***[ji]pónit-ex 'to fill' [1]**

Mk [j]<o>pon-het-ix [2] (Gerzenstein 1999: 283–284) • Ni [ji]pont-ef [3] (Seelwische 2016: 103) • PCh *[ʔi]pónit-eh > Ijw [ʔi]p'ónit-i / -pónit-i; I'w -ta-pónit-i [4]; Mj [ʔi]t^(j)e-pónit^(j)-e / -ta-pónit^(j)-e [4 5] (Carol 2014a: 77; Drayson 2009: 110; Gerzenstein 1983: 163; Carol 2018) • PW *[ʔi]tá-ponit-ex 'to fill with' [4] > 'Wk [ʔi]tá-ponit-ex (Claesson 2016: 372)

[1] This verb is obviously related to PM *[t]pó? 'to be full', but *-nit- is not known to have been a productive causative suffix in PM.

[2] We have no explanation for the element -o- in Maká. The causative suffix -het- has replaced the etymological sequence *-it-, which must have functioned as a part of the root in PM, due to a morphological change.

[3] The loss of the stem-medial vowel *i in Nivačle is irregular.

[4] Iyo'awujwa', Manjui, and Wichí have innovated in inserting the reflex of the prefix *t- by analogy with *[t]pó? 'to be full'.

[5] The applicative suffix is unexpectedly reflected as -e and not *-it in Manjui.

***pútāh 'tapeti'**

Ni *puta* (-k) (Seelwische 2016: 223) • PCh *púteh > I'w pótih, pótih-is [1]; Mj póti (-is) (Gerzenstein 1983: 156; Carol 2018)

[1] ? in Gerzenstein's (1983) attestation of the Iyo'awujwa' reflex must be a mistranscription.

***-pxúse? (*-j^h) 'beard'; *pxúse-na^ʔχ 'bearded; gilded catfish'**

Mk (-)<a>pxusi? (-j) 'beard, moustache' (Gerzenstein 1999: 124) • Ni -páse (-j) [1]; páse<nxa> (-j) [1 2] 'gilded catfish' (Seelwische 2016: 222, 350) • PCh *-púse? (*-j^h) > Ijw -póksi? (-ʔl); I'w -póksi?, -póxse-j; Mj -póxse? (-j); *púse<nah>, *púse<hna>-s 'bearded' > Mj póxsenā, póxsehna-s (Carol 2014a: 76; Drayson 2009: 125; Gerzenstein 1983: 156; Carol 2018) • PW *-páse (-j^h) [1] > LB -pose; Vej -páse (-j) 'moustache'; 'Wk -páse-ç; *pásenaχ, *pásenhas 'gilded catfish' [1] > Vej pásenah; 'Wk pásenax, páseṇa-s (Nercesian 2014: 148; Gutiérrez & Osornio 2015: 22, 61; Claesson 2016: 79, 286)

[1] The Nivačle and Wichí forms are entirely irregular: one would expect Ni *-pxuse, PW **-phúse. The stem has obviously suffered contamination with PM *-pás 'lower lip' in these languages. Wichí also has a similar root, PW *-púse(-)j^h 'bodily hair' > LB -pesej; 'Wk -púseç (Nercesian 2014: 406; Claesson 2016: 296), which could be related or unrelated to the PM etymon.

[2] The Nivačle reflex could be a back-formation from the plural form (PM *pásenhas or *pásenhas-j^h).

***[ji]p'o(?) ~ *[ji]p'ó(?) [1] 'to cover'**

Ni [ji]p'o (Seelwische 2016: 103) • PCh *[ʔi]p'ó-APPL > Ijw [ʔi]p'ó<n>-e / -p'ó<n>-e; I'w -p'ó-APPL [2]; Mj [ʔi]p'(i)ó-APPL / -p'ó-APPL (Carol 2014a: 77; Drayson 2009: 110; Gerzenstein 1983: 156; Carol 2018) • PW *[hi]p'ó-APPL > LB [hi]p'u-APPL; Vej -p'o(?)-pe; 'Wk [hi]p'ó-APPL (Nercesian 2014: 117; Viñas Urquiza 1974: 71; Gutiérrez & Osornio 2015: 39; Claesson 2016: 300)

[1] We reconstruct *p' rather than *φ', because the root is obviously related to PM *-p'o't 'lid'.

[2] The absence of glottalization in Gerzenstein's (1983) attestation of the Iyo'awujwa' reflex must be a mistranscription.

Likely related to Proto-Guaicuruan *-ap'o 'to cover, to wear' (Viegas Barros 2013b, #89; cf. Viegas Barros 2013a: 305).

Najlis 1984: 33 (*p'ɔhni 'to lock up'); Viegas Barros 2013a: 305 (*-p'o(-hi) 'to close')

***-p'o'k ~ *-φ'o'k 'fence'**

Ni -p'o'k, -p'okl-is [1] 'beehive marked as one's own by its discoverer' (Stell 1987: 125; Seelwische 2016: 225, 351) • PCh *-p'ók > Ijw -p'ók 'fence for fishing' (Drayson 2009: 125) • PW *-p'ok^w 'fence, earthenware field bottle (caramayola)' [2] > Vej -p'ok^w 'earthenware field bottle'; 'Wk -p'ok, -p'óho-ç (Viñas Urquiza 1974: 71; Claesson 2016: 80; Alvarsson 2012a: 71–72)

[1] The Nivaçle plural form must be non-etymological.

[2] The semantic relation between 'fence' and 'earthenware field bottle' is attributed to the circular shape of the bottle by (Alvarsson 2012a: 71–72).

Rejected: Najlis (1984: 38) compares the Wichí term for 'earthenware field bottle' with Nivaçle (-)p'ok 'arrow' and reconstructs PM *p'ɔwk'. This is implausible for semantic reasons.

***(-)p'o't, *(-)p'ot-ots[?] ~ *-p'ot-ets 'lid'**

Mk p'ot<o?> (-l) 'recipient with a lid for storing objects' (Gerzenstein 1999: 299) • Ni -p'o't, -p'ot-os (Seelwische 2016: 225) • PCh *-p'ót, *-p'ot-és > Ijw -p'ót (-is); I'w -p'ót (-es) [2]; Mj (-)p'ót, (-)p'at-és [3] (Drayson 2009: 125; Gerzenstein 1983: 156; Carol 2018) • PW *-p'ot, *-p'ót-es > 'Wk -p'ot, -p'ót-es (Claesson 2016: 85)

[1] The noun is obviously derived from PM *[ji]p'o(?) ~ *[ji]p'ó(?) 'to cover'.

[2] The absence of glottalization in the initial consonant in the Iyo'awujwa' reflex must be a mistranscription on Gerzenstein's (1983) part. The stress in the plural form appears to be an innovation.

[3] The unrounding and lowering of *o in the Manjui plural form is irregular.

Viegas Barros 2013a: 304 (*-(a)p'o-t)

***qa 'in order to (irrealis subordinator)'**

Mk qe 'in order to, because' (Gerzenstein 1994: 210; Gerzenstein 1999: 305) • Ni

ka (Fabre 2014: 275; Seelwische 2016: 53) • PCh **qa* > Ijw/I'w/Mj *ka* (Drayson 2009: 133; Gerzenstein 1983: 81; Carol 2018)

***[ji]qáku? 'to distrust'**

Mk [je]qeku? (Gerzenstein 1999: 155) • Ni [ji]kaku (Seelwische 2016: 55) • PCh *[ʔi]qáku? > Ijw [ʔi]kák'u? [1]; Mj [ʔi]k'ák'u? / -kák'u? (Drayson 2009: 100; Carol 2018) • PW *[ji]qák'u-APPL > 'Wk [ja]qák'u-APPL (Claesson 2016: 306)

[1] The Iyojwa'aja' reflex is mistranscribed as [ʔi]kák'u in Drayson (2009: 100).

***-qák-xi? ~ *-qak-xí? ~ *-qák-xij^h ~ *-qak-xíj^h [1] 'lap; calf'**

Mk -qek-xi? 'calf' (Gerzenstein 1999: 305) • PW *-qák-hih [2] > 'Wk -qák-^hih 'lap' (Claesson 2016: 84)

[1] Maká points to a compound with *-xi? 'inside a recipient', and Wichí to a compound with *-xíj^h 'recipient'.

[2] The PW reflex **kh* of PM **kX* may be regular, as Wichí does not otherwise have **k^h*.

***-qalá? (*-j^h) 'leg' [1]**

Ni -kaklá? (-j) (Seelwische 2016: 56) • PCh *-qa'lá? ~ *-qá'lá? (*-j^h) [2] > I'w -kalá? (-j) 'foot'; Mj -ka'lá? (-j^h) (Gerzenstein 1983: 136; Carol 2018) • PW *-qáá (*-j^h) [3] > LB -(t-)qolo; Vej -kála [4]; 'Wk -qáá?, 3 ta-qáá? (-ç) (Nercesian 2014: 55, fn. 17, 164–165; Viñas Urquiza 1974: 61; Claesson 2016: 82)

[1] The body part denoted by this term canonically encompasses one's shank and foot.

[2] The glottalization in PCh **l* appears to be irregular (the seemingly plain reflex in Iyo'awujwa' could be a mistranscription on Gerzenstein's part). It is impossible to determine whether the PCh form contained an **a* or an **á*, because this opposition is neutralized following a **q* (even in Iyojwa'aja', though a cognate in that variety is lacking anyway). One possible explanation for the occurrence of PCh **l* is contamination with PCh **ʔa'lá?* 'tree', as if it were a derivation thereof containing the alienizer *-qá- (compare Maká *naxak* 'stick, (fire)wood' and -*qa-naxak* 'leg'; Gerzenstein 1994: 266, 302).

[3] The loss of PM **ʔ* in Wichí is not known to be regular.

[4] The final vowel *a* in the Vejoz form as documented by Viñas Urquiza (1974) must be a mistranscription.

Possibly related to Proto-Guaicuruan **qo'ná* 'leg (lower part)' (Viegas Barros 2013b, #530).

Najlis 1984: 12, 18 (**qala*, PL **qala-j*); Campbell & Grondona 2007: 15; Gutiérrez 2015b: 253

***qati'ts, *qatits-él 'star'**

Ni *kati's* (Seelwische 2016: 112) • PCh **qatés*, **qates-él* > Ijw *katés* (-e'l); I'w *katés* (-éj) [1]; Mj *katés*, *katás-éjh* ~ *katis-éjh* [1] (Carol 2014a: 77; Drayson 2009: 134; Gerzenstein 1983: 137; Carol 2018; Hunt 1994) • PW **qates*, **qatéts-el^h* > LB *qates*, *qatets-eł*; Vej *kates*, *katets-eł* ~ *katets-el*; 'Wk *qates*, *qatéts-eł* (Nercesian

2014: 191; Viñas Urquiza 1974: 61; Gutiérrez & Osornio 2015: 43; Fernández Garay 2006–2007: 214; Claesson 2016: 316)

[1] Iyo'awujwa' and Manjui use a non-etymological plural suffix, having replaced *-él with *-éj^h.

Possibly related to Proto-Guaicuruan *aqat'i 'star' (Viegas Barros 2013b, #99; cf. Viegas Barros 2013a: 311).

Najlis 1984: 18 (*qatéts); Campbell & Grondona 2007: 16; Viegas Barros 2013a: 311 (*gate-ts)

*[t]qánhan 'to fish with a hook'

Mk [ta]<qa>qanhen (Gerzenstein 1999: 302) • PCh *[t^o]qáhnhan > Ijw [ta]káhna'n; *-qáhna-t 'fishhook' > Ijw -káhnat (-is); I'w -káhnat (-es) (Drayson 2009: 120, 148; Gerzenstein 1983: 138) • PW *[t]qánhan > 'Wk [t(a)]qáñan (Claesson 2016: 373)

Possibly cognate with Proto-Qom *[do]qojna-van 'to fish with a hook, to trap', itself a derivative of -qojna 'trap'.

*-q(Á)xtek, *-q(Á)xte-j^h [1] 'liver'

Mk -<?a>qtik, -<?a>qti-j [2] (Gerzenstein 1999: 127; Braunstein 1987: 202) • Ni -(<?a>)kâxtâk (-is) [1 2 3] (Seelwische 2016: 36) • PCh *-qÁhlek, *-qÁhle-j^h > Ijw -káhlik, káhle-?; I'w -káhlik, -káhle-j; Mj (-)káhlek, káhle-j (Carol 2014b; Drayson 2009: 120; Gerzenstein 1983: 138; Carol 2018) • PW *-qáteq > 'Wk -qátek 'stomach' (Claesson 2016: 86)

[1] Maká points to PM *-...q(x)tek; Nivaçle to *-...qáxtâk; Chorote to *-qáxtek or *-qáxtek; Wichí to *-qátek.

[2] We have no explanation for the elements Mk/Ni -?a-. The stem-initial glottal stop is attested only in Braunstein (1987: 202), who gives the form wit-'oqlik with the unexpected vowel o, but is left untranscribed by Gerzenstein (1999).

[3] The vowel in the final syllable in Nivaçle must be a product of progressive vowel harmonization, and the plural form is non-etymological in that language.

Campbell & Grondona 2007: 15

-qéj (-its) 'custom' [1]

Ni -kej (-is) (Seelwische 2016: 226) • PCh *-qéj? (*-is) > Ijw -kéj? (-jis); Mj -kéj? (-is) (Carol 2014a: 76; Drayson 2009: 121; Carol 2018) • PW *-qéj (-is) > LB -qej (-is); Vej -kej; 'Wk -qéj? (-is) (Nercesian 2014: 191; Viñas Urquiza 1974: 62; Claesson 2016: 88)

[1] Possibly from PM *qá- (alienable possession) + *-ej 'name'.

*sát-u'k, *sát-ku-j^h 'lecherón tree (Sapium haematospermum)'

Mk setu'k [1], setkw-i (Gerzenstein 1999: 324) • PCh *sátuk > Ijw/I'w sát^(j)uk; Mj sátuk (Drayson 2009: 145; Scarpa 2010: 187; Carol 2018) • PW *sátuk^w > Southeastern (Salta) satek^w; 'Wk sátuk (Suárez 2014: 263; Claesson 2016: 326)

[1] The presence of a preglottalized coda in Maká is presumed based on the fact that the suffix *-uʔk* is otherwise attested with *ʔk*. The Maká datum is not attested in our sources that distinguish between plain and preglottalized codas.

***sát'a(ʔ)(t)s ‘parakeet sp.’**

Ni *sát'as* ‘white-eyed parakeet’ (Seelwische 2016: 231) • PCh **sát'as* ‘blue-crowned parakeet’ > Ijw *sát'as*; I'w *sá'tas (-is)*; Mj *sát'as* (Drayson 2009: 145; Gerzenstein 1983: 157; Carol 2018) • PW **sát'as* > LB *sat'as* ‘blue-crowned parakeet’; Vej *sat'as*; 'Wk *sát'is* [1] (Nercesian 2014: 157; Viñas Urquiza 1974: 72; Gutiérrez & Osornio 2015: 22; Claesson 2016: 327)

[1] The vowel *i* in the 'Weenhayek reflex is not the expected outcome of PW **a*.

***-sáq'ál^h, *-sáq'ál-its ‘soul, spirit’**

(?) Mk *-si'ñq'al (-its)* [1] (Gerzenstein 1999: 326) • Ni *-sák'ákl<it>*, *-sák'ákl<ti>-s* (Seelwische 2016: 358) • PCh **-sáq'ál^h, *-sáq'ál-is* > Ijw *-sák'al, -sák'al-is*; I'w *-sákal* [2] (Drayson 2009: 125; Gerzenstein 1983: 157)

[1] The Maká form is attested in the New Testament (e.g. Luke 20:24); Gerzenstein (1999: 326) actually mistranscribes it as *-sinqal (-its)*. The Maká word is tentatively included under this etymology, but the sound correspondences are entirely irregular: one would expect Maká **-saq'al (-its)*.

[2] The plain *k* in Gerzenstein's (1983) attestation of the Iyo'awujwa' reflex must be a mis-transcription.

Rejected: Najlis (1984: 47) lists reflexes of PW **-húsek, *-húse-j^h* ‘temperance, soul’ under this etymology.

Najlis 1984: 47 (**sakál*); Gutiérrez 2015b: 253

***-sáʔt ‘vein, tendon’**

Mk *-<ʔa>saʔt, -<ʔa>sta-j* [1] (Gerzenstein 1999: 129) • Ni *-sáʔt, -sát-áj* (Seelwische 2016: 383) • PCh **-sát-á...* > Ijw *-sát<aki>*; I'w *-sat<ájik>, sat<áje>-j*; Mj *-sat<ájik>, sat<áje>-ej* ‘vein’ (Drayson 2009: 125; Gerzenstein 1983: 157; Carol 2018) • PW **-sát* ‘tendon, heel’ > Vej *-sát* ‘muscle, tendon’; 'Wk *-sát, -sát-aç* ‘tendon, heel’ [2] (Viñas Urquiza 1974: 72; Claesson 2016: 90)

[1] The element *ʔa-* in Maká has no parallels in other Mataguayan languages and is probably a fossilized morpheme. The presence of a preglottalized coda in Maká is inferred based on the Nivačle cognate; the singular form is not attested in our sources that distinguish between plain and preglottalized codas. The plural form is attested in the New Testament (Colossians 2:19), but it is not revealing.

[2] 'Weenhayek shows contamination of PW **-sat* ‘heel’ and **-sát* ‘tendon’, which has resulted in a polysemic noun *-sát* ‘tendon, heel’.

Campbell & Grondona 2007: 20

***[ji]selán ‘to spank’ [1]**

Mk [j]<eq>silan [2] ‘to spank with something flexible’ (Gerzenstein 1999: 157)
 • PCh *[ʔi]selán ‘to prepare’ [1] > Ijw [ʔi]lǐksaʔn / -lǐksaʔn [3]; Mj [ʔi]filʔén ‘to store’; *[ʔi]selán-eh ‘to make, to prepare’ [1] > Ijw [ʔi]lǐksan-e / -lǐksan-e [3]; Iʔw -silʔén-; Mj [ʔi]filʔén-e (Drayson 2009: 102; Gerzenstein 1983: 158; Carol 2018)

[1] Despite the semantic discrepancy between the Maká and Chorote verbs, we believe them to be cognate. Spanking chágua (raw caraguatá fiber) against one’s leg is a very important part of making it ready for textile production among the peoples of Chaco.

[2] We have no explanation for the element -eq- in Maká.

[3] Iyojwaʔajaʔ shows an irregular metathesis of PCh *s and *l and a regular stress retraction.

***-seʔ, *-sé-jʰ ‘bodily hair’ → *-pxúseʔ ‘beard’, *-t(á)ko-seʔ ‘eyebrow’, (?) *-tátseʔ ‘eyelash’**

***(-)skäʔt ‘mesh’**

Ni -stfaʔt, -stfat-is (Seelwische 2016: 232) • PW *sikʔet ‘mesh purse’ > LB sitfet; ʔWk sikʔet (Nercesian 2014: 418; Claesson 2016: 329)

Najlis 1984: 41, 47 (*s-*cet*)

***sláqha(?)j, *sláqhaj-its ‘wild cat’**

Ni *ʃklákkaj* ~ *sklákkaj* (-is) [1] (Stell 1987: 498, 535; Gutiérrez 2015b: 231; Seelwische 2016: 239; Campbell et al. 2020: 95) • PCh *sʰláhqajʔ ~ *sʰláhqájʔ (*-is) [2] > Ijw *silʔákaʔ*; Iʔw *siláhkaj* (-is); Mj *filáhkajʔ* (-is) (Carol 2014a: 91; Drayson 2009: 145; Gerzenstein 1983: 153; Carol 2018) • PW *siláqhāj > Vej *silákāj* [3]; ʔWk *siláqháʔ* [4] (Gutiérrez & Osornio 2015: 22; Claesson 2016: 329)

[1] The form *sklákkaj* is attested as a variant alongside *ʃklákkaj* in Stell (1987: 498, 535) and Gutiérrez (2015b: 231). In her discussion of the variation of the type *sC-* ~ *ʃC-*, Stell (1987: 534–535) observes that *sC-* is found in the speech of her consultant from Las Vertientes (speaker of Chishamnee Lhavos) and – in variation with *ʃC-* – of one consultant from the Mission of San Leonardo/Fischat (speaker of Shichaam Lhavos), whereas her other consultants from San Leonardo/Fischat and San José de Esteros use exclusively *ʃC-*. Only the form *ʃklákkaj* is attested in Campbell et al. (2020: 95), who deal with the Chishamnee Lhavos dialect, and in Seelwische (2016: 239).

[2] It is impossible to determine whether the PCh form contained an *a or an *á in the last syllable; other Mataguyan languages offer conflicting evidence.

[3] The loss of the aspiration of PW *qh in Vejoz is irregular. Viñas Urquiza (1974: 72) gives *silokaj*, which must be a mistranscription.

[4] The expected reflex in ʔWeenhayek would in fact be *siláqháʔjʔ.

Rejected: Despite a superficial similarity to the aforementioned forms, Maká *xunkhaj* (-its) ‘wild cat’ (Gerzenstein 1999: 393) shows no regular correspondence with PM *sláqhaj (*-its). It

must be a borrowing from Nivačle instead, whose form was probably influenced by that of Mk *xunkhaj* ‘fog’, another likely loan from Nivačle (Ni *fnakxaj*). Braunstein (1987: 48) documents the Maká form as *xunqaj*.

Najlis 1984: 11, 37 (**slâqaj*); Campbell & Grondona 2007: 16

***sóp’wa(-ta)-ju’k, *sóp’wa(-ta)-jku-j^h ‘caspi zapallo (*Pisonia zapallo*)’**

Ni *sóp’a-ta<tf>*, *sóp’a-ta<ku>-j* (Seelwische 2016: 235) • PCh **sóp’wa-juk* > Ijw *sóp’ajik* ~ *sóp’uwa-jik*; I’w *sóp’(w)a-jik*; Mj *sóp’a-jik* (-ij) (Drayson 2009: 147; Scarpa 2010: 187; Carol 2018) • PW **sóp’wa-juk^w* > LB *supf^wa-jek^w*; Southeastern (Salta) *sup’wajuk* ~ *so-* ~ *-pf^w-* (Spagarino 2008: 59; Suárez 2014: 313)

***sténi(?) (fruit); *stén-u’k (tree) ‘white quebracho (*Aspidosperma quebracho-blanco*)’**

Mk *sitin-u’k* [1], *sitin-kw-i* (Gerzenstein 1999: 327) • PCh **ʔsténiʔ*; **ʔsténi-k* > Ijw *ʔistíni-k*; *ʔistín-k’et*; I’w *isténi-k*; Mj *ʔisténiʔ*, *ʔisténi-wal* ~ *ʔiftín’eʔ*, *ʔiftín’e-l* (Drayson 2009: 112; Gerzenstein 1983: 132; Carol 2018) • PW **ʔisté’nih* > Southeastern (Salta) *ʔiste’ni* [2]; Vej *iste’ni*; ’Wk *ʔisté’nih* (Suárez 2014: 184; Viñas Urquiza 1974: 61; Gutiérrez & Osornio 2015: 18; Claesson 2016: 37)

[1] The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 7).

[2] Suárez (2014: 184) actually gives *isteni*, but note that she consistently fails to transcribe glottalized consonants as such. Spagarino (2008: 59) gives the unexpected form *siteni*.

Najlis 1984: 39 (**s-teni*); Campbell & Grondona 2007: 20

***stwú’n, *stwún-its ‘king vulture’**

Ni *staβu’n*, *staβun-is* ‘king vulture; Milky Way’ (Seelwische 2016: 236) • PCh **ʔstúu’n*, **ʔstúun-is* > I’w *ʔistó’n*; Mj *ʔistúu’n*, *ʔistúun-is* ~ *-ft-* (own field notes; Carol 2018) • PW **ʔistíwin* [1] > LB *ʔistiwin*; Vej *istiwin<i>-tah* [2]; ’Wk *ʔitsíwin-tax* ~ *stíwin-tax* (Spagarino et al. 2013 [2011]; Gutiérrez & Osornio 2015: 21; Claesson 2016: 40, 334)

[1] The Wichí reflex is entirely irregular.

[2] The Vejoz reflex is mistranscribed as *istiwin<i>-tah* in Viñas Urquiza (1974: 61).

***-su(?) (*-l) ‘vagina’**

Mk *-suʔ(-l)* (Gerzenstein 1999: 328) • Ni *-suʔ(-k)* (Seelwische 2016: 236) • PCh **-<i>suʔ(*-l)* [1] > Ijw *-<é>s’u(-’l)* [2]; I’w *-<é>s’uʔ*; Mj *-<éi>fuʔ(-l)* (Drayson 2009: 131; Gerzenstein 1983: 127; Carol 2018) • PW **-su(?)* > Vej *-su-*; ’Wk *-suʔ* (Viñas Urquiza 1974: 73; Claesson 2016: 221)

[1] The Chorote reflex contains an extra vowel (PCh **i*) before the root, which appears to continue a fossilized unidentified morpheme.

[2] The absence of a final *ʔ* in the Iyojwa'aja' form is unexpected. The regular outcome of PCh **-ísuʔ* in this variety would be **-és'uʔ* **/-ísuʔ/* rather than the attested *-és'u /-ísuh/*.

Najlis 1984: 26, 28 (**ahs-u ~ *achu*)

***s'wúla(ʔ)χ, *s'wúla-ts 'anteater'**

Ni *s'βuklax*, *s'βukla-s* [1] 'anteater; rayfish' (Gutiérrez 2015b: 53; Seelwische 2016: 237; Campbell et al. 2020: 80) • PCh **s'ʔúlah*, **s'ʔúla-s* [2] > Ijw *soʔól'e* (-s); I'w *sʔóla* ~ *soólah*, *soóla-s*; Mj *saʔóla* (-s) (Carol 2014a: 76, fn. 2, 91; Drayson 2009: 147; Gerzenstein 1983: 161; Carol 2018) • PW **súlaχ* > LB *selaχ*; Vej *sulah* (-*tajis*); 'Wk *súlaχ* (Nercesian 2014: 213; Viñas Urquiza 1974: 73; Gutiérrez & Osornio 2015: 22; Claesson 2016: 332)

[1] The glottalization in Nivačle *s'β* is attested only in Campbell et al. (2020: 80), who also report that the speakers of Chishamnee Lhavos from Central Paraguay lose the *β* and produce *sʔ-* instead (Campbell et al. 2020: 83).

[2] The correspondence between the vowels of the first syllable in Iyojwa'aja'/Iyo'awujwa' and Manjui is irregular.

Najlis 1984: 50 (**sɛwhla*); Viegas Barros 2002: 144 (**seulaχ*)

***[ji]s'wun ~ *[ji]s'wún 'to like, to love'**

Mk *[ji]suʔun* (Gerzenstein 1999: 329) • Ni *[ji]s'βun* [1] (Seelwische 2016: 237) • PCh **[ʔi]s'ʔún* > Mj *[ʔi]ʃʔón / -saʔón ~ [ʔi]ʃʔón / -sʔón* (Carol 2018)

[1] In the Chishamnee Lhavos dialect, the verb *[j]en* is used instead of *[ji]s'βun* (Campbell et al. 2020: 9).

***s'ám (*-its) 'frog sp.'**

Mk *s'am-s'am* (-its) 'frog (*Leptodactylus macrosternum*)' (Gerzenstein 1999: 329; Braunstein 1987: 70) • PCh **ts'ám* (*-its) > Mj *ts'ám* (-is) 'ju'i frog (*Pseudis platensis*)' (Carol 2018)

***táxχan 'to thunder'**

Mk *texen* (Gerzenstein 1999: 336) • Ni *tafχen* [1] (Seelwische 2016: 258) • PW **t'áχan* [2] > 'Wk *t'áχan* [2] (Claesson 2016: 431)

[1] In Nivačle, *e* is not the expected reflex of PM **a*.

[2] The glottalization of the initial consonant in the Wichí reflex is irregular.

[3] Concerning the final consonant, Claesson (2016: 431) explicitly notes that it is uncertain whether it is glottalized (*t'áχa'n*) or voiceless (*t'áχan*); only the voiceless one matches the Nivačle cognate.

***[ni]táφä(ʔ)l-APPL 'to know, to be acquainted' [1]**

Ni *[ni]táφakl-APPL* (Seelwische 2016: 274) • PCh **[ʔi]táhwel-APPL* > I'w *[i]t'éf'el-eʔ / -táf'el-eʔ* 'to know, to know how to' [2]; Mj *[ʔi]t(ʔ)éhwel-e*

/ *-táhwel-e* (Gerzenstein 1983: 42, 162; Carol 2018) • PW **-táx^wel-APPL* / **-táx^wnh-APPL* > LB *-tof^wel-eχ* / *-tof^wη...-eχ*; Vej *-tah^wel-eh* [3]; ^wWk *[ni]táx^wel-APPL* / *[ni]táx^wη-APPL* (Nercesian 2014: 342; Viñas Urquiza 1974: 74; Claesson 2016: 337–339)

[1] This could be an ancient compound involving a root for ‘eye, sight’ (as Ni *tâ* in *[ji]tâ<φat>* ‘to get something in one’s eye’, *tâ-^wmat* ‘to have bad sight’, *tâ<sex>* ‘eye, seed’) and ‘to tell’ (PM **[ji]φál*). Compare Maká *[n]ikfê^l-APPL* ‘to know, to be acquainted’ (Gerzenstein 1999: 195), whose element *-fê^l-* might be cognate with PM **-φä(°)l-* in **[ni]táφä(°)l-APPL*.

[2] Gerzenstein (1983: 191) also documents the irregular forms *-táwel-e?* and *-táf^we?*, which could result from mistranscription.

[3] The vowel *a* (as opposed to *â*) in Vejoz must be a mistranscription on Viñas Urquiza’s (1974) part.

Fabre (2014: 308) compares the Mataguayan verb with the Enlhet–Enlhet verb with the same meaning – Enlhet, Enenlhet–Toba *-jekpelk-*, Enxet *-jekpeltf-*, Sanapaná *-jepet-*, Guaná *-jekpetk-* (Unruh & Kalisch 1997: 459; Unruh et al. 2003: 323; Gomes 2012: 349; Elliott 2021: 618; Kalisch 2023: 164) – but this could be spurious.

Fabre 2014: 308

***tâ^l ‘to sprout, to come out’**

Mk *ta^l* [1] (Gerzenstein 1999: 331) • Ni *tâ^l* (Seelwische 2016: 276) • PCh **tâ^l* > Ijw *ta^l*; I^w *-tâl*; Mj *tâ^l* (Carol 2014a: 87; Drayson 2009: 149; Gerzenstein 1983: 162; Carol 2018) • PW **tâ^l* > LB *to^l-APPL* ‘to come from’; Vej *-tâ^l-e* ‘sprout, descendant’; ^wWk *tâ^l* (Nercesian 2014: 230, 263; Viñas Urquiza 1974: 75; Claesson 2016: 339)

[1] The preglottalized coda in the Maká reflex is attested in the New Testament (e.g. John 17:7).

***-támte? ‘daughter-in-law’; *-támte-ts ‘children-in-law’ [1]**

Ni *-tâmit^a*, *-támte-s* ‘son-in-law’; *-támte<?e>* (-j) ‘daughter-in-law’; *-tâmk^lâ^j* (-k) ‘child-in-law responsible for a funerary ritual’ (Seelwische 2016: 276) • PCh **-támte?*; **-támte-ts* > Mj *-tâmet* ‘son-in-law’; *-támte?* ‘daughter-in-law’; *-támte-s* ‘children-in-law’ (Carol 2018)

[1] It is possible to reconstruct the root **-tâm-* ‘child-in-law’, but other derivatives cannot be reconstructed at this time.

Najlis 1984: 47 (**temet* ‘son-in-law’)

***-tâtse? (*-j^h) ‘eyelash’**

Mk *-tetsi?* (-j) [1] (Gerzenstein 1999: 336) • Ni *-tâtse* (-j) (Seelwische 2016: 384) • PCh **-tâse?* (*-j^h) > Ijw *-tâxse?* (-^l) [2]; I^w/Mj *-tâxse?* (-j) (Carol 2014a: 93; Drayson 2009: 125; Gerzenstein 1983: 162; Carol 2018)

[1] The vowel *e* in the Maká word is unexpected and does not match either Ni *â* or Chorote **â* (it is certain that PCh had **â* and not **a* in this word, cf. Iyojwa'aja' *hit'áse?* /hl-táse/ 'his/her eyelash', *ʔit'áse?* /j-táse/ 'my eyelash').

[2] The Iyojwa'aja' plural form, as attested by Drayson (2009), is non-etymological.

Viegas Barros (2013a: 308) suggests that this is a compound (with its first element meaning 'eye') and compares the second element with Proto-Guaicuruan **-ad'e* 'eyelash'.

Viegas Barros 2013a: 308 (**-ta-tsi?*)

***-táwä'x, *-táwxä-ts [1] 'cavity, abdominal cavity' [2]**

Mk *-tawe'x* [3], *-tawxe-ts* (Gerzenstein 1999: 333) • Ni *-tâβa(°)f*, *-tâβxa-s* (Seelwische 2016: 277) • PCh **-tóweh* [4] > Ijw *-tówē*, *-tówá'l*; I'w *-tówē (-j)* [1]; Mj *-tówē* (Drayson 2009: 126; Gerzenstein 1983: 166; Carol 2018) • PW **towex*, **towhá-j^h* [1 4 5] 'vessel' > LB *tuwex*, *tuma-j*; Vej *toweh*; 'Wk *towex*, *tomá-ç*; **-tówēx*, **-tówhá-j^h* [1 4] 'opening' > Vej *toweh*; 'Wk *-tówex*, *-tóma-ç* (Nercesian 2014: 58; Viñas Urquiza 1974: 77; Gutiérrez & Osornio 2015: 52; Claesson 2016: 94, 420)

[1] The plural form is reconstructed based on the evidence from Maká and Nivaçle. Chorote and Wichí show noncognate plural forms.

[2] This term is likely an obscure compound, with PM **-wá'x* as its second part.

[3] The preglottalized coda in the Maká reflex is attested in the New Testament (e.g. Luke 1:46).

[4] The raising of PM **â* to PCh/PW **o* is not known to be regular.

[5] The absolute form is only documented in Wichí and might not be reconstructible all the way to PM.

Najlis 1984: 27, 56 (**thowehn* ~ **tâwehn* 'opening'); Viegas Barros 2002: 143 (**towex*) 'hole'; Viegas Barros 2013a: 311 (**-to-weh*)

***tänúk (*-its) 'feline' ('cat' in the contemporary languages) [1]**

Mk *tenuk (-its)* (Gerzenstein 1999: 335) • Ni *tanuk (-is)* (Seelwische 2016: 255) • PCh **tinúk (*-is)* > Ijw/I'w *tin'úk (-is)*; Mj *tin'úk (-is)* (Drayson 2009: 151; Gerzenstein 1983: 165; Carol 2018)

[1] The reflexes of this term in the contemporary varieties designate *Felis catus* (the domestic cat). In the protolanguage, the root in question must have designated an unidentified feline species native to South America, possibly the jaguarundi (*Herpailurus yagouaroundi*), still designated by a derivative of the same root in Manjui (*tin(°)úk-ite*, literally 'similar to a *tin(°)úk*'). Fabre (2014: 308) observes that this root is obviously related via borrowing to an Enlhet-Enenlhet term with the same meaning, Enenlhet-Toba, Sanapaná, Guaná *tenok* 'cat' (Unruh et al. 2003: 337; Gomes 2012: 149; Kalisch 2023: 188).

Najlis 1984: 12, 49 (**tajn-(j)úk*); Campbell & Grondona 2007: 15; Fabre 2014: 308

***-tä(°)ts, *-täts-él [1] ‘trunk; base; origin, fault’; *-táts-u^hk, *-táts-ku-j^h ‘trunk’**

Ni *-tats-uk, -tas-ku-j* (Seelwische 2016: 259) • PCh **-tés, *-tes-él; *(-)tés-uk, *-tés-ku-j^h* > Ijw 3 *hi-tís (-e^l)* ‘root; procedence; fault’; 3 *hi-tísⁱ-uk, hi-tís-kⁱ-^l* [1] ‘trunk’; I’w *tésⁱ-uk, -tés-ki-?*; Mj 3 *hi-tés-uk ~ hi-tés-ki?, hi-tés-ki-j* ‘stump’ (Drayson 2009: 126; Gerzenstein 1983: 164; Carol 2018) • PW **-tes, -téts-el^h* > LB *-tes, -tets-eł; Vej -tes* ‘fault, debt’; ’Wk *-tes, -téts-eł* (Nercesian 2014: 114, 154, 215; Braunstein 2009: 49; Viñas Urquiza 1974: 75; Gutiérrez & Osornio 2015: 57; Claesson 2016: 93, 221)

[1] The plural form *hi-tis-kⁱ-^l*, attested in Iyojwa’aja’, is non-etymological.

Campbell & Grondona 2007: 16

***-te? (*-té-j^h) ‘eye’**

Mk *-t<o?> (-j)* [1] (Gerzenstein 1999: 343) • PCh **-ta-té? (*-j^h)* > Ijw *-tá-te? (-^l)* [2]; I’w *-ta-té? (-j); Mj -ta-té? (-j^h)* (Carol 2014a: 87; Drayson 2009: 126; Gerzenstein 1983: 163; Carol 2018) • PW **-t(a)-te? (*-j^h)* > LB *-t-te-j* ‘face’, *-t-te-tu* ‘eye’ [3]; Vej *-te (-j), -te-ło*; ’Wk *-t(a)-te? (-t(a)-té-ç)* (Nercesian 2014: 161, 165; Viñas Urquiza 1974: 75; Fernández Garay 2006–2007: 219; Claesson 2016: 99)

[1] The Maká word is apparently an ancient compound of **-te?* ‘eye’ and **-o? (*-j^h)* ‘seed’.

[2] The plural form attested in Iyojwa’aja’ does not match the one found in Manjui and Wichí and is thus non-etymological.

[3] In Lower Bermejeño Wichí, the erstwhile plural form of ‘eye’ is now used in the meaning ‘face’; a compound (‘eye’ + ‘seed’) is now used for the meaning ‘eye’ (compare ’Weenhayek *-t(a)-té-ło? (-ç)* ‘eye globe’, attested in Claesson 2016: 100). Note, however, that Braunstein (2009: 57) documents LB *-te?* ‘eye’.

Viegas Barros 2013a: 308, fn. 20 (**-tA?*)

***téwo(°)k ~ *téwâ(°)k [1] ‘river’**

Ni *toβok, toβxo-j*; ChL/ShL *toβâk, toβxâ-j*; YL *toβak* (Gutiérrez 2015b: 38; Seelwische 2016: 274; Campbell et al. 2020: 99) • PCh **téwok ~ *téwâk* [1] > Ijw *téwuk (-is)*; I’w *téwak*; Mj *téwak* (Carol 2014a: 90; Drayson 2009: 150; Gerzenstein 1983: 164; Carol 2018) • PW **téwok^w* > LB *tewuk^w*; Vej *tek-tah* ‘river’, *tewok^w-tah* ‘Pilcomayo River’; ’Wk *téwok (-is ~ -lis ~ -łajis)* (Nercesian 2014: 161; Viñas Urquiza 1974: 75; Gutiérrez & Osornio 2015: 44; Claesson 2016: 397)

[1] The variant **téwok* is suggested by the reflexes in Iyojwa’aja’, Wichí, and by the Nivaçle reflex *toβok*, attested in Fabre (2014) and Seelwische (2016). The latter is likely a dialectal reflex, though our sources do not specify the dialect to which it belongs. The variant **téwâk* is suggested by the reflexes in Iyo’awujwa’, Manjui, and all major varieties of Nivaçle, such as Chishamnee Lhavos (Campbell et al. 2020), Shichaam Lhavos (Gutiérrez 2015b), and Yita’ Lhavos (Gutiérrez 2015b). It is unclear which variant is more conservative.

Campbell & Grondona 2007: 15, 21

***tiφ ~ *tíφ ‘to spend’**

Ni *tiφ* (Seelwische 2016: 268) • PCh **[ʔi]tím* [1] > Ijw *[ʔi]tím* / -tém; Mj *[ʔi]tím* / -tém (Drayson 2009: 113; Carol 2018)

[1] In Chorote, this verb now receives a non-etymological third-person prefix *ʔi-* (rather than zero).

***tiʔ ‘to suckle (at)’**

Mk *tuʔf* / -*tuʔf* [1] (Gerzenstein 1999: 343) • Ni *tiʔ* (Seelwische 2016: 268) • PCh **[ʔi]tím* [2] > Mj *[ʔi]tím* / -tém (Carol 2018) • PW **tip* [3] > Vej -*tip-eh*; ^ʷWk *tip* (Viñas Urquiza 1974: 76; Gutiérrez & Osornio 2015: 36; Claesson 2016: 407)

[1] The rounded vowel in the Maká reflex is unexpected. The preglottalized coda is attested in the New Testament (e.g. Matthew 21:16).

[2] In Chorote, this verb now receives a non-etymological third-person prefix *ʔi-* (rather than zero).

[3] It is unclear whether the development PM **ʔ* > PW **p* is regular, as no supporting examples are known. Compare the causative PW **[ʔi]tix-qat* ‘to breastfeed’ > Vej -*tih-kat*; ^ʷWk *[ʔi]tix-qat* (Viñas Urquiza 1974: 76; Claesson 2016: 400).

Possibly related to Proto-Guaicuruan **-lip* ‘to suck’ (Viegas Barros 2013b, #376).

***tijáʔ ‘to shoot, to throw’**

Mk *tijaʔ* / -*tijaʔ* (Gerzenstein 1999: 340) • Ni *tijáʔx* (ShL *tijoʔx*) (Stell 1987: 504; Seelwische 2016: 270) • PCh **[ʔi]tijáh* [1] > Ijw *[ʔi]tija* / -tēja; Mj *[ʔi]tije* / -tėje (Drayson 2009: 114; Carol 2018) • PW **tijáʔ* > LB *tijox*; ^ʷWk *tijáx* (Nercesian 2014: 145; Claesson 2016: 409)

[1] The presence of a preglottalized coda in Maká is inferred based on the Nivačle cognate; the verb is not attested in our sources that distinguish between plain and preglottalized stops.

[2] In Chorote, this verb now receives a non-etymological third-person prefix *ʔi-* (rather than zero).

***tiVχ ~ *tíVχ ~ *tíVχ [1] ‘glosswhite woodpecker**

Mk *tilax* (Braunstein 1987: 62) • • PW **tilix* ~ **tílix* ~ **tílix* > LB *tilix* (Spagarino et al. 2013 [2011])

[1] The vowel of the second syllable cannot be reconstructed with certainty: Maká points to PM **á*, **a*, or **e*, whereas Lower Bermejeño Wichí points to **i*.

***-tiʔ ‘to spin a thread, to sew’**

Mk *[j]tiʔ* [1] ‘to sew’ (Gerzenstein 1999: 337) • Ni *tiʔ* (Seelwische 2016: 269) • PCh **[j]<á>tiʔ* ‘to sew’ > Ijw *[j]étiʔ* / -*átiʔ*; Iʷw -*átel-jiʔ*; Mj *[j]étiʔ* / -*átiʔ*; **[ʔi]tíl-kʰeʔ* ‘to spin a thread’ > Ijw *[ʔi]tíl-kʰi* / -*tél-kʰi*; Mj *[ʔi]tíl-ʔiʔ* / -*téil-ʔiʔ* (Drayson 2009: 113, 159; Gerzenstein 1983: 122; Carol 2018)

[1] The Maká reflex unexpectedly lacks preglottalization in the coda, as attested in the New Testament (Mark 1:19; Matthew 4:21).

***tiłáʔx ‘to carry on one’s shoulders’**

Mk *tiłoʔx* / *-tiłoʔx* [1] (Gerzenstein 1999: 337) • Ni *tiłáʔx* (Seelwische 2016: 269) • PCh **[ʔi]tiłlâh* [2] > Ijw *[ʔi]tiłlʰa* / *-télhʰa*; Iʔw *-té(h)li* ~ *-téhjli*; Mj *[ʔi]tiłlʰe* / *-téhliʰe* (Drayson 2009: 113; Gerzenstein 1983: 164, 189; Carol 2018) • PW **tiłáχ* > LB *tiłox*; Vej *tiłâh*; ʔWk *tiłâx* (Nercesian 2014: 145; Viñas Urquiza 1974: 76; Claesson 2016: 404)

[1] The vowel *o* in the Maká reflex is entirely unexpected. The presence of a preglottalized coda in Maká is inferred based on the Nivačle cognate; the verb is not attested in our sources that distinguish between plain and preglottalized stops.

[2] In Chorote, this verb now receives a non-etymological third-person prefix *ʔi-* (rather than zero).

Possibly related to Proto-Guaicuruan **-i(ʔ)lak* ‘shoulder’, whence Mbayá <-ilacate> ‘to carry on one’s shoulders’ (Viegas Barros 2013b, #276). Viegas Barros (2013a: 309) compares it to Proto-Guaicuruan **-iʰlaqa* ‘back (of body)’ instead.

Viegas Barros 2002: 144 (**-tiłáχ*, misglossed as ‘to dig’); Viegas Barros 2013a: 309 (**-t-iłlâh*)

***tim ‘to swallow’**

Mk *tim-xuʔ* / *-tim-xuʔ* (Gerzenstein 1999: 338) • Ni *tim* (Seelwische 2016: 269) • PCh **[ʔi]tím* [1] > Ijw *[ʔi]tiʰm* / *-téʰm*; Iʔw *-tém*; Mj *[ʔi]tím* / *-tém* (Drayson 2009: 114; Gerzenstein 1983: 164; Carol 2018) • PW **tim* > LB/Vej *tim*; ʔWk *tiṃ* (Nercesian 2014: 349; Viñas Urquiza 1974: 76; Claesson 2016: 407)

[1] In Chorote, this verb now receives a non-etymological third-person prefix *ʔi-* (rather than zero).

***tis ‘to invite, to pay’**

Mk *tis-ix* / *-tis-ix* ‘to give’ (Gerzenstein 1999: 339) • Ni *tis* (Seelwische 2016: 270) • PCh **[ʔi]tís* [1] > Ijw *[ʔi]tís* / *-tés*; Iʔw *-tés*; Mj *[ʔi]tís* / *-téis* (Drayson 2009: 114; Gerzenstein 1983: 164; Carol 2018) • PW **tis* > Vej/ʔWk *tis* (Viñas Urquiza 1974: 76; Claesson 2016: 408)

[1] In Chorote, this verb now receives a non-etymological third-person prefix *ʔi-* (rather than zero).

***títe(?)k, *títthe-j^h ‘plate’**

Ni (-) *títetʃ*, (-) *títte-j* (Seelwische 2016: 270) • PCh **títek*, **títte-j^h* > Ijw *tétik*, *téti-ʔl* [1] ‘recipient for food’; Iʔw *tétik*, *téjti-ji* [1]; Mj *tétik*, *téiht-i-j* (Drayson 2009: 150; Gerzenstein 1983: 163; Carol 2018)

[1] The plural forms in Iyojwa’aja’ and Iyo’awujwa’ are non-etymological.

Campbell & Grondona 2007: 16, 22; Gutiérrez 2015b: 64

***ti'x 'to dig' [1]**

Mk *ti(°)x-APPL* / *-ti(°)x-APPL* [2] (Gerzenstein 1999: 339) • Ni *ti'f* (Seelwische 2016: 269) • PCh **[ʔi]tíh-ij?* [3] > Ijw *[ʔi]tíh-i?* / *-téh-e?*; I'w *-téh-i?*; Mj *[ʔi]tíh-ij?* / *-tíh-ij?* (Carol 2014a: 90; Drayson 2009: 113; Gerzenstein 1983: 165; Carol 2018) • PW **tiχ* > LB *tif-i hohnat* (lit. 'to dig-APPL earth'); Vej *tih-APPL*; 'Wk *tix* (Braunstein 2009: 57; Viñas Urquiza 1974: 76; Claesson 2016: 399)

[1] The underived verb is intransitive. Applicative derivations are used for expressing an object.

[2] The root-final consonant in Maká is attested as preglottalized in the New Testament in the forms *ti'x-ik'wi* 'to bury, to dig' (Acts 5:6; Acts 5:9; Acts 8:2; Luke 6:48; Mark 6:29; Matthew 25:18), *ti'x-ifi?* 'to row' (John 6:19; Mark 6:48). However, the forms *tix-xu?* 'to dig' (Matthew 21:33; Mark 12:1) and *wi-tix-ki?* 'well' (e.g. Revelations 9:2) are attested with a plain coda.

[3] In Chorote, this verb now receives a non-etymological third-person prefix *ʔi-* (rather than zero).

Viegas Barros 2002: 143 (**tix*; glossed as Spanish 'lavar', a typo for 'cavar')

***-t(á)ko? (*-l) 'face'; *-t(á)ko-se? (*-j^h) 'eyebrow' [1]**

Mk *-tko<jek>*, *-tko<jeh>-ej*; *-tko-si?* (-j) (Gerzenstein 1999: 286) • Ni *-tako?(-l)* (Seelwische 2016: 246) • PCh **-tóko?(*-l)* > Ijw *-tók'o?* (-^ʔl); I'w *-tók'o?(-l)*; Mj *-tók'o?*; **-tóko-se?(*-j^h)* > Ijw *-tók'o-se?*; I'w *-tók'o-se?(-j)*; Mj PL *-tók'o-se-j* (Drayson 2009: 126; Gerzenstein 1983: 166; Carol 2018) • PW **-ták'o(*-l^h)* 'forehead' > Vej *-tatfo(-t)*; 'Wk *-ták'o?*; **-ták'o-se(*-j^h)* > LB PL *-tatfu-se-j*; 'Wk *-ták'o-se?(-ç)* (Braunstein 2009: 56; Viñas Urquiza 1974: 73; Gutiérrez & Osornio 2015: 61; Claesson 2016: 92)

[1] It is unclear whether a consonant cluster should be reconstructed in this case (assuming vowel insertion in Nivaçle, Chorote, and Wichí) or whether the vowel was already there in Proto-Mataguyan (assuming an irregular syncope in Maká).

Najlis 1984: 22 (**táčɔ* 'face'); Viegas Barros 2013a: 308, fn. 21 (**-tako?* 'forehead', **-tako-si?* 'eyebrow'); Campbell & Grondona 2007: 16 ('forehead')

***tlú'k 'blind'**

Ni *taklu'k*, *taklux-uj* 'blind; greater pichiciego' (Seelwische 2016: 248) • PCh **t^ʔlúk* > I'w *talók* (Gerzenstein 1983: 162) • PW **tilúk^w* > 'Wk *tilúk(-is)* (Claesson 2016: 404)

Najlis 1984: 24 (PL **taluk-j*); Campbell & Grondona 2007: 15; Gutiérrez 2015b: 253

***tós (*-its) 'snake'**

Ni *tos(-is)* (Campbell et al. 2020: 95) • PCh **tós(*-is)* > I'w *tóxs(-is)*; Mj *tós*, *tóxf-is* (Gerzenstein 1983: 166; Carol 2018)

***tóχ-*ej*^h, *tó-ts-*ej*^h; *tóχ-APPL, *tó-ts-APPL ‘far’**

Mk *toχ-ij*, *to-ts-ij* (Gerzenstein 1999: 342) • Ni *tox-*ej**, *tox-APPL* (Seelwische 2016: 273) • PCh **tóhw-*ej*^h*, **tó-ts-*ej*^h*; **tóh-APPL*, **tó-ts-APPL* > Ijw *tóhw-e*, *tó-s-e*; *tóhw-APPL*, *tó-s-APPL*; I’w *tóf^w<en>*; Mj [*ʔa*]*tóhw-*ej**; [*ʔa*]*tóh-APPL* (Drayson 2009: 152; Gerzenstein 1983: 165; Carol 2018) • PW **tóx^w-*ej*^h* > LB *tuf^w-*ej**; Vej *toh^w-*ej** [1]; ’Wk *-<ʔa>tóx^w-*e*ʔ* [1] (Nercesian 2014: 327; Fernández Garay 2006–2007: 215; Claesson 2016: 16)

[1] The loss of the word-final **-j^h* in ’Weenhayek is irregular. A *j*-less form is also attested for Vjej by Viñas Urquiza (1974:108, *toh^w-*e**), which could be a mistranscription.

Hunt 1915: 240; Viegas Barros 2002: 145 (no reconstruction)

***túku(ʔ)(*t*)s ‘ant’**

Ni *tukus* ‘ant; Bolivian’ (Seelwische 2016: 279) • PCh **túkus* > Ijw *tókis* ‘ant; soldier’; I’w *tókis*; Mj *tókis* ‘ant; soldier’ (Carol 2014a: 94, fn. 25; Drayson 2009: 152; Gerzenstein 1983: 165; Carol 2018)

Najlis 1984: 42, 43 (**thus*); Campbell & Grondona 2007: 15

***túsu(ʔ)(*t*)s ‘lesser yellowlegs’**

Ni *tusus* ‘lesser yellowlegs; solitary sandpiper’ (Seelwische 2016: 281) • PCh **túsus* > Ijw *tóxsus* (Drayson 2009: 153) • PW **túsus* > LB *teses*; ’Wk *túsus* ‘kind of bird (small, white)’ (Spagarino et al. 2013 [2011]; Claesson 2016: 426)

***tux ‘to eat (vt.)’**

Mk *tux* / *-lux* (Gerzenstein 1999: 344) • Ni *tux* (Seelwische 2016: 280) • PCh **[ʔi]túm* > Ijw [*ʔi*]*t^húm* / *-tóm*; I’w [*i*]*t^húh* / *-tóh*; Mj [*ʔi*]*t^húm* / *-tóm* [1] (Carol 2014a: 87; Drayson 2009: 114; Gerzenstein 1983: 42, 166; Carol 2018) • PW **tux^w* > LB *tef^w*; Vej *tuh^w*; ’Wk *tux^w* (Nercesian 2014: 237; Viñas Urquiza 1974: 77; Claesson 2016: 420)

[1] In Chorote, this verb now receives a non-etymological third-person prefix *ʔi-* (rather than zero).

Possibly related to Proto-Guaicuruan **-e^hliko* ‘to eat’ (Viegas Barros 2013b, #214).

Najlis 1984: 39 (**thu*); Viegas Barros 2002: 143 (**-tux*)

***-^htxo^hk ~ *-^htxó^hk, *-^htxók-owot ‘uncle’**

Mk *-txo^hk* [1], *-txók-its* [2] (Gerzenstein 1999: 287) • Ni *-^htxo^hk*, *-^htxók-*oβot** [3 4] (Seelwische 2016: 271) • PCh **-<i>tók*, **-<i>tók-owot* [5] > Ijw *-^htók*, *-^htók^j-owot* [6]; Mj *-(<i>t^h)ók*, *-tóʔ-*oj** [2 7] (Drayson 2009: 126; Carol 2018) • PW **-<wi>thok^w* [5] > LB *-<wi>t^huq* [8]; ’Wk *-<wi>t^hok* (Nercesian 2014: 194; Claesson 2016: 102)

[1] The presence of a preglottalized coda in the Maká reflex is inferred based on the Nivačle cognate; it is not attested in our sources that distinguish between plain and preglottalized codas.

[2] The plural forms attested in Maká and Manjui are non-etymological.

[3] In the Chishamnee Lhavos dialect, *x* is lost: *-toʔk*.

[4] The onset of the Nivačle nouns carries the feature [+constricted glottis], as it induces glottalization in the preceding vowel (Gutiérrez 2015b: 193).

[5] The origin of the elements **-<i>* in Chorote and **-<wi>* in Wichí is unclear.

[6] Drayson (2009: 126) claims the Iyojwa'aja' form to be a Iyo'awujwa' loan, but it is not clear on what grounds.

[7] The Manjui plural form is non-etymological.

[8] Lower Bermejeño Wichí appears to have irregularly lost labialization of the final consonant. Alternatively, it could be a mistranscription or a typo on Nercesian's (2014) part, as only one attestation of this word is available.

Compare Proto-Qom **-tesóqoʔ* 'uncle' (cf. Viegas Barros 2013b, #567).

Najlis 1984: 10, 25 (**ithúuk*); Campbell & Grondona 2007: 16

***-t'é-l [1] 'tears' (plurale tantum)**

Mk *-t'i-l* (Gerzenstein 1999: 345) • Ni *-t'e<k̄l>-is* (Seelwische 2016: 286) • PCh **-t'él->-is* [1] > Ijw *-t'él-is* (Drayson 2009: 126)

[1] This word appears to be an ancient compound of PM **-teʔ* 'eye' and **-ʔi* (**-l*) 'liquid'. Chorote and Wichí also use a more transparent compound of the reflexes of these roots, cf. Iyojwa'aja' *-tá-te t'élʔ(-ʔl)*, 'Weenhayek *-t-té-t'iʔ(-t)* (lit. 'liquid of the eye'; Drayson 2009: 155; Claesson 2016: 100). Note that these compounds go back to PChW **-t(a)-te t'-iʔ* (**-l*) and thus cannot reflect PM **-t'e-l* ~ **-t'él-l*.

[2] Nivačle and Chorote have fossilized the erstwhile plural suffix **-l* > Ni *-k̄l*, Ijw *-l* as a part of the stem.

Possibly related to Proto-Guaicuruan **-át'iʔ* 'tear' (Viegas Barros 2013b, #128), if only the Proto-Guaicuruan reconstruction is correct. However, there is evidence that the Proto-Guaicuruan form should be reconstructed as **-át'it* instead. The stem-final stop would account for *di* in the Kadiwéu reflex *-at:i:di* and for the stem-final consonant in Mocoví, seen in the 2SG form *r-atʃitʃ-iʔ* and in the 2PL form *r-atʃir-i*.

Gutiérrez 2015b: 253

***-Ct'éh 'grandmother' / *-qá-Ct'éh 'mother-in-law'; *-Ct'éʔk 'grandfather' / *-qá-Ct'éʔk 'father-in-law' [1 2]**

Ni *-kt'e(-j)* / *-ka-kt'e(-j)*; *-kt'eʔtʃ*, *-ktʃe-βot* / *-ka-kt'eʔtʃ*, *-ka-ktʃe-βot* (Campbell et al. 2020: 90, 182, 495) • PCh **-nt'éh*, **-nt'é-ewot* / **-qá-nt'éh*; **-nt'ék* (**-áwot*) / **-qá-nt'ék* > Ijw *-nt'éh*, *-nt'é-wot* / *-ká-nt'é*; *-nt'ék*, *-nt'ék^l-awot* / *-ká-nt'ék*; Mj *-(i)nt'éʔ*, *-(i)nt'é(-ε)wat* / *-ká-nt'éʔ* (*-wot* ~ *-wat*); *-(i)nt'ék*, *-(i)nt'ék^l-ewat* ~ *-(i)nt'ék^l-owat* / *-ká-nt'ék*, *-ká-nt'ék^l-ewot* ~ *-ká-nt'ék^l-ewat* (Carol 2014b; Carol 2018)

[1] The root-initial consonant cannot be reconstructed at present: Nivačle points to **l*, **k*, or **q*, whereas Chorote points to **n*. In Chorote, this is the only relational noun that starts with a consonant cluster, suggesting that it may have undergone a unique sound change due to the position being unparalleled.

[2] Maká and Wichí have similar but obviously unrelated roots: Mk *-wket* (-its) ‘grandfather’ / *-qe-wket* (-its) ‘father-in-law’, *-wket-i?* (-j) ‘grandmother’ / *-qe-wket-i?* (-j) ‘mother-in-law’ (Gerzenstein 1999: 165, 310); PW **-k’átih* ‘grandfather’ / *-qá-k’átih* ‘father-in-law’ > LB *-t’foti* ‘grandfather, father-in-law’; Wk *-k’átih* / *-qá-k’átih* (Nercesian 2014: 194; Claesson 2016: 63, 84). It is possible that the Maká and Wichí forms are partial cognates between themselves, but the vowels do not match.

Najlis 1984: 23 (**theuk*); Campbell & Grondona 2007: 15

***-t’íle?** (**-j^h*) ‘rheum’ [1]

Mk *-t’ili?* (-j) (Gerzenstein 1999: 345) • Ni *-t’iklé* (-j) (Seelwische 2016: 287) • PCh **-t’íle-* > Ijw *-t’él’ak* (-is) [2]; I’w *-téli<jes>*; Mj *-t’éili<jees>* (Drayson 2009: 126; Gerzenstein 1983: 164; Carol 2018)

[1] This is likely a compound of the root **-t’i-* ~ **-t’í-* ‘eye (in compounds)’, preserved in Nivačle *-t’i-pâklâ* (-s) ‘eyebrow’, *-t’i-βaf*, *-t’i-βfa-s* ‘inner corner of the eye’ (Seelwische 2016: 287, 288).

[2] The Iyojwa’aja’ reflex seems to have been influenced by *-ʔil’ák* ‘pus’.

***-t’ij** ~ ***-t’íj** [1] ‘to move (intr.), to infect’, CAUS ***[ji]t’ij-hat**

Ni *[βa]t’ij*, *[ji]t’ij-xat* (Seelwische 2016: 288) • PCh **[ʔi]t’ij?*, **[ʔi]t’ihj-at* > I’w *-téj* [2], —; Mj *[ʔi]t’ij?* / *-t’ei?*, *[ʔi]t’ihj-et* / *-t’eihj-et* (Gerzenstein 1983: 163; Carol 2018)

[1] The correspondence Ni *t’* ~ PCh **t’* could in principle also go back to PM **t’*. We reconstruct PM **t’* because PM **t’* is not known to have occurred tautomorphemically.

[2] The plain stop in the Iyo’awujwa’ form attested by Gerzenstein (1983) must be a mistranscription.

***t’isá?** ~ ***t’isá?** (**-l*) ‘cream-backed woodpecker (*Campephilus leucopogon*)’

Mk *t’isá?* (-l) (Gerzenstein 1999: 345) • Ni *t’isá?* (-k) ‘woodpecker sp.’ (Seelwische 2016: 287) • PCh **t’isá?* (-l) > Ijw *t’is’á?* (-l) (Drayson 2009: 155)

***-t’ox** ~ ***-t’óx** [1] ‘aunt’

Ni *-t’ox*, *-t’ox-oβot* (Seelwische 2016: 288) • PCh **-<i>t’óh* [2] > Mj *-<i>t(i)’óh* (Carol 2018) • PW **-<wi>t’ox* [2] > LB *-<wi>t’ux*; Vej *-<wi>t’oh^(w)*, *-<wi>t’oh-tajis*; Wk *-<wi>t’ox^w* (Nercesian 2014: 194; Viñas Urquiza 1974: 81; Gutiérrez & Osornio 2015: 69; Claesson 2016: 102)

[1] The correspondence Ni *t’* ~ PCh/PW **t’* could in principle also go back to PM **t’*. We reconstruct PM **t’* because the root is evidently related to PM **-t’oxó’k* ~ **-t’oxó’k* ‘uncle’ and because PM **t’* is not known to have occurred tautomorphemically.

[2] The origin of the elements *-<i>- in Chorote and *-<wi>- in Wichí is unclear.

Najlis 1984: 10, 40 (**ithó*)

****t'ún* 'hard'**

Mk *t'un* (-its) (Gerzenstein 1999: 346) • Ni *t'un* 'hard; cookie' (Seelwische 2016: 290) • PCh **t'ún* > Ijw *t'ó'n* (Drayson 2009: 156) • PW **t'ún* > LB *t'en*; Vej *t'un*; 'Wk *t'ún* (Nercesian 2014: 178; Viñas Urquiza 1974: 78; Claesson 2016: 450)

****tsáháq* [1] (*-its) 'chajá bird'**

Mk *tsahaq* [1] (-its) (Gerzenstein 1999: 347) • PCh **sáhák*, **sáháq-es* ?
**sáháq-is* > Ijw *sahák*; I'w *sahák* (-is); Mj *sahák* (-es ~ -is) (Drayson 2009: 144; Gerzenstein 1983: 157; Carol 2018) • PW **tsáháq* > LB *tsohoq*; 'Wk *tsáháq* (Nercesian 2014: 50; Claesson 2016: 463)

[1] The reconstruction **tsáhá(?)q* is ruled out because the Maká reflex is attested with a plain coda in Braunstein (1987: 55).

Likely related to Proto-Guaicuruan **t'aaqa* 'chajá bird' (Viegas Barros 2013b, #553), whence Toba-Qom *taqaq* 'id.' (Cúneo & Porta 2009: 251).

Viegas Barros 2002: 144 (**tsáχAq*)

****tsänú'k* 'duraznillo (*Ruprechtia triflora*)'**

Ni *tsanu'k*, *tsanku-j* (Seelwische 2016: 292) • PCh **sinúk* > Ijw *sin'úk* 'a tree similar to *Ziziphus mistol* but thinner'; Mj *fin'úk* (-ij) (Drayson 2009: 145; Carol 2018) • PW **tsinúk*^w > LB *tsinek*^w; Southeastern (Salta) *tfinek*^w [1]; Vej *tsinuk*; 'Wk *tsinúk* (Spagarino 2008: 59; Suárez 2014: 320; Viñas Urquiza 1974: 55; Gutiérrez & Osornio 2015: 19; Claesson 2016: 465)

[1] The affricate *tf* in Southeastern Wichí, as attested by Suárez (2014: 320), is irregular.

Najlis 1984: 14, 49 (**tsajn-úk*); Campbell & Grondona 2007: 21

***-*tséwte(?)* (*-j^h) 'tooth'**

Ni *-tseβte* (-j) (Seelwische 2016: 294) • PW **-tsóte* (*-j^h) > LB *-tsute*; Vej *-tsote*; 'Wk *-tsóte?* (-ç) (Braunstein 2009: 39; Viñas Urquiza 1974: 55; Claesson 2016: 100)

****tséχ-APPL* 'full (e.g. a river)'**

Ni *tsex-APPL* 'full, abundant' (Seelwische 2016: 293) • PCh **-sáh* [1] 'to rise (of water)' > Ijw [*i*]*s'éh* / *-sáh*; Mj [*ʔa*]*sáh* (Drayson 2009: 111; Carol 2018) • PW **tsáχ-APPL* > 'Wk *tsáχ-APPL* 'voluminous' (Claesson 2016: 63)

[1] In Chorote, this verb now receives non-etymological third-person prefixes *ʔi-* or *ʔa-* (rather than zero).

***tsijá? ~ *ts'ijá? [1] 'caracara (*Milvago sp.*)'**

Mk *tsije?* 'chimango caracara (*Milvago chimango*); yellow-headed caracara (*Milvago chimachima*); black-collared hawk (*Busarellus nigricollis*)' (Braunstein 1987: 58) • PW **ts'ijá?* 'chimango caracara (*Milvago chimango*)' > LB *ts'ija* [2]; LB *ts'ijá?* (Nercesian 2014: 157; Spagarino et al. 2013 [2011]; Claesson 2016: 470)

[1] The Maká reflex points to PM **tsijá?*, the Wichí one to **ts'ijá?*.

[2] The Lower Bermejeño Wichí reflex unexpectedly lacks the root-final glottal stop.

***tsiwáłqoł 'little nightjar (*Setopagis parvula*)'**

Mk *tsiwołqoł* (Braunstein 1987: 61) • PW **tsiwáłqoł* > LB *tsiwałk^wuł* [1]; 'Wk *siwáłqoł* [2] (Spagarino et al. 2013 [2011]; Claesson 2016: 330)

[1] The Lower Bermejeño Wichí reflex, as attested by Spagarino et al. (2013 [2011]), unexpectedly shows *k^w* instead of *q*.

[2] The root-initial fricative in the 'Weenhayek reflex is irregular. It is also seen in the dialectal reflexes attested in Lunt (2016: 79, 80), *siwałkoł* ~ *suwałkoł*; it is unknown whether these forms are representative of Guisnay or Vejoz.

***tsóφa (fruit) 'Maytenus vitis-idaea'; *tsóφa-tax (fruit); *tsóφa-ta-(ju)'k (tree) 'Lycium americanum'**

Mk *tsofe-tax*; *tsofe-te-'k*, *tsofe-te-ket* (Gerzenstein 1999: 349) • Ni *tsoφ-tax*, *tsoφ-ta-s*; *tsoφ-ta-juk*, *tsoφta-ku-j* [2] 'bush sp.' (Seelwische 2016: 297) • PCh **sóhwa?* 'Maytenus vitis-idaea' > Ijw *sóhwa?*; I'w *sóhwa?*; Mj *sóhwa?* ~ *sóhwo?* (Drayson 2009: 147; Scarpa 2010: 187; Carol 2018) • PW **tsóx^wa*; **tsóx^wa-t-uk^w* 'Lycium nodosum' > Southeastern (Salta) *tsuf^wa*; Vej *tsoh^wa* (no gloss); 'Wk *tsóx^wa?*; *tsóx^wa-t-uk* (Suárez 2014: 343; Gutiérrez & Osornio 2015: 74; Claesson 2016: 466)

[1] The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo'e ha Tembikuaa Motenondeha 2022: 7).

[2] The syncope of the vowel of the medial syllable is irregular in Nivaçle.

***tso'm ~ *tsó'm 'plush-crested jay (*Cyanocorax chrysops*)' [1]**

Mk *tso'm*, *tso-m-its* (Gerzenstein 1999: 349; Braunstein 1987: 64) • PCh **só'm* > Mj *só'm* (Carol 2018)

[1] Ni *tsum* 'plush-crested jay (*Cyanocorax chrysops*)' (Campbell et al. 2020: 506) is similar to these forms, but its initial consonant is the only segment that shows a regular correspondence with the Maká and Manjui forms.

***(-)tsútsuh 'grandfather'**

Ni *tsutsu* 'grandfather, old man (possibly vocative)' (Campbell et al. 2020: 495) • PCh **-sútsuh* > Mj *-sútsu* [2] (Carol 2018)

[1] There is also a similar form Ni *tufufu*, used in the children's language Campbell et al. (2020: 493).

[2] There is also an absolute form Mj *tót'u ~ tút'u*, possibly associated with the children's language.

***ts'áts'ih, *ts'áts'i-l 'rufous hornero'**

Mk *ts'its'i (-l)* [2] (Gerzenstein 1999: 351) • Ni *ts'ats'i (-k)* (Seelwische 2016: 301) • PCh **sát'ih* [3] > Ijw *sát'i (-his)*; Mj *sát'i (-waʔ)* (Carol 2014a: 90; Drayson 2009: 145; Carol 2018) • PW **tats'i* [4] > LB/Vej *tats'i* [5]; 'Wk *táts'iʔ* (Nercesian 2014: 50; Viñas Urquiza 1974: 77; Gutiérrez & Osornio 2015: 22; Claesson 2016: 386)

[1] The plural form is reconstructed based on the evidence of Maká and Nivaçle. It is thus technically reconstructible only for Proto-Maká-Nivaçle.

[2] The expected reflex in Maká would be **ts'ets'i*.

[3] The Chorote reflex shows an irregular dissimilation: **ts'...ts' > *ts...ts' > *s...t'*.

[4] The Wichí reflex shows an irregular dissimilation: **ts'...ts' > *ts...ts' > *t...ts'*.

[5] Viñas Urquiza (1974: 77) attests Vej *t'ats'i*, whose initial glottalized consonant may be a mistranscription.

***(t)s'ó'ts 'milk'**

Ni *(-)ts'ó's, (-)ts'ós-ik* [1]; *ts'ots-i* 'to have milk' (Seelwische 2016: 303) • PCh **-qá <i>t'ós* [2 3] > Ijw *-ká-t'ós*; Mj *-ká-it'ós, -ká-it'óf-is* (Drayson 2009: 121; Carol 2018) • PW **ts'ós* > Guisnay *t'ós* [2]; 'Wk *ts'ós* (Lunt 2016: 94, 100; Claesson 2016: 470)

[1] The Nivaçle plural form is non-etymological, since it does not preserve the root-final /ts/, seen in the verb *ts'ots-i* 'to have milk'.

[2] The Chorote and Guisnay reflexes show an irregular dissimilation: **ts'...ts > *t'...ts > *t'...s*.

[3] We have no explanation for the element **i* in the Chorote reflex.

***[j]úłá(?)χ 'to be tired'**

Mk *-ułá(?)χ* [1], *-ułáχ-its* 'breath' (Gerzenstein 1999: 354) • Ni *[j]ułáχ* (Seelwische 2016: 306) • PCh **[j]úłlâh* > I'w *-óhula / -ó(h)la-*; Mj *[j]úhla* (Gerzenstein 1983: 154, 188; Carol 2018)

[1] The uncertainty regarding the coda in Maká is due to the fact that the singular form is not attested in our sources that distinguish between plain and preglottalized codas. The plural form is attested in the New Testament (Acts 17:25), but it is not revealing.

Rejected: Viegas Barros (2013a: 307) compares the Nivaçle and Chorote terms to Maká *walχal* 'idler' (Gerzenstein 1999: 360) and the Wichí term for 'slow' (PW **[j]íwał*, whence LB *[j]íwał*, 'Wk *[j]íwał-APPL* 'slow'; cf. Braunstein 2009: 63; Claesson 2016: 549). This is untenable both phonologically and semantically.

Viegas Barros (2013a: 307) compares the Mataguyan root to Proto-Guaicuruan **-ewe(?)la* 'to be tired' (VB 2013b, #243), which is likely a spurious comparison.

Viegas Barros 2013a: 307 (**-wáłAh* 'slow, tired')

***-ú^ʔp, *-úp-its ‘nest’**

Mk 3 *t-up* [1] (-its) (Gerzenstein 1999: 255; UNICEF & Tekombo'e ha Tembikuaa Motenondeha 2022: 22) • Ni *-u^ʔp, -up-is* (Seelwische 2016: 308) • PCh **-úp (*-is)* > Ijw *-óp (-is)*; I'w 3 *hl-úp (-is)*; Mj 3 *hl-óp (-is)* (Drayson 2009: 132; Gerzenstein 1983: 175; Carol 2018) • PW **-t-úp (*-is)* > LB *-t-ep*; Vej *-t-up*; 'Wk *-t-úp (-is)* (Nercesian 2014: 170; Viñas Urquiza 1974: 66; Claesson 2016: 76)

[1] The Maká reflex unexpectedly lacks preglottalization in the coda in the singular form, as attested in UNICEF & Tekombo'e ha Tembikuaa Motenondeha (2022: 22).

Fabre (2014: 306) notes the similarity with Enlhet *to:p* 'pipe' (Unruh & Kalisch 1997: 230), but the similarity is obviously accidental.

Najlis 1984: 21 (**hlhnp*); Campbell & Grondona 2007: 20; Fabre 2014: 306; Gutiérrez 2015b: 254

***-uwa ‘termite house’**

Ni *-uβa (-k)* (Seelwische 2016: 308) • PW **-<t>uwa* > Vej *tuwa*; 'Wk *tuwa?* (Gutiérrez & Osornio 2015: 66; Claesson 2016: 239)

Viegas Barros (2013a: 311) compares the root with Proto-Guaicuruan **a(°)lo* 'termite house' (Viegas Barros 2013b, #119), which could be spurious.

Najlis 1984: 50 (**hlsewa*); Viegas Barros 2013a: 311 (**tuwa*)

***-u(?) ~ *-ú(?) ‘to throw, to push’; *n-u(?) ~ *n-ú(?) ‘to throw oneself, to pass’**

Ni *[j]u?* 'to throw, to push'; *n-u?* 'to throw oneself' (Seelwische 2016: 305)

• PCh **[ʔi]<n>ú?* 'to pass' > Ijw *[ʔi]n^ʔú?* / *-nó?*; I'w *-nó* 'to exit, to walk'; Mj *[ʔi]n^ʔú?* / *-nó?* (Carol 2014a: 95; Drayson 2009: 106; Gerzenstein 1983: 151; Carol 2018) • PW **[ʔi]<n>ú-APPL* > LB *[ʔi]ne-APPL*; Vej *-nu-APPL*; 'Wk *[ʔi]n^ʔú-APPL* (Nercesian 2014: 177; Viñas Urquiza 1974: 69; Gutiérrez & Osornio 2015: 36; Claesson 2016: 279–282)

Najlis 1984: 13 (**nu* 'to walk fast')

***wák'a(?) (fruit); *wák'a-ju^ʔk, *wák'a-jku-j^h (tree) ‘guayacán (*Libidibia paraguariensis*)’**

Mk *wék'e-ju^ʔk* [1], *wék'e-jkw-i* (Gerzenstein 1999: 366) • PCh **wák'a-juk, *wák'a-jku-j^h* > Ijw (*h*)*wák^j'e-k* [2]; I'w *áe-jik ~ á?a-jik ~ a?i-jík, áe-si-?* [3]; Mj *?á?a-jik* [3] (Drayson 2009: 133; Gerzenstein 1983: 117; Scarpa 2010: 187; Carol 2018) • PW **wák^j'a(?)*; **wák^j'a-juk^w, *wák^j'a-k^ju-j^h* > LB *watfa-jek^w, watfa-tfe-j* [4]; Vej *wát^f'a-juk* [5]; 'Wk *wák^j'á?*; *wák^j'á-juk* [5] (Nercesian 2014: 192; Gutiérrez & Osornio 2015: 19; Claesson 2016: 475)

[1] The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo'e ha Tembikuaa Motenondeha 2022: 7).

[2] The Iyojwa'aja' variant with *hw-* is attested in Drayson (2009: 133).

[3] In Iyo'awujwa' and Manjui, PCh *w was irregularly lost.

[4] In Lower Bermejeño, the glottalization in PW *kʷ is unexpectedly lost. Spagarino (2008: 61) documents the unexpected form *wotfo-jek*^w.

[5] Vejoz and 'Weenhayek á is not the expected reflex of PW *a.

***wáqa(?)ʔ 'to be fruitful, ready, ripe', CAUS *[ʔi]wáq(a)ʔ-Vt**

Ni *βakaʔ* / -*βkaʔ*, CAUS [*ji*]βakʔ-it (Seelwische 2016: 311, 312; Campbell et al. 2020: 316, 390) • PCh *wáqaʔ [1] > Ijw *wákaʔ*; Mj *wákaʔ*; CAUS *[ʔi]wáqahl-at > Ijw [ʔi]wʲákahl-<an-it>; Mj [ʔi]jákaahl-at / -wákahl-at 'to bring up, to adopt' (Drayson 2009: 116, 156; Carol 2018) • PW *wáqʷaʔ [2] > LB *waqʷaʔ*; Vej *wakʷaʔ*; 'Wk *wáqʷaʔ*; CAUS *[ʔi]wáqʷʔ-at [2] > Vej -*wakʷat*; 'Wk [ʔi]wáqʷʔat (Nercesian 2014: 50; Viñas Urquiza 1974: 79; Claesson 2016: 477, 478)

[1] The back vowel *á in Chorote (reconstructed based on the Iyojwa'aja' causative [ʔi]wʲákahl-an-it) does not match the evidence from Nivačle and Wichí.

[2] The glottalization in PW *qʷ is irregular.

***wátá(?)χ (fruit); *wáth(á-j)uʷk (tree) 'palo flojo (Albizia inundata or Enterolobium contortisiliquum)'**

Ni *βâtâx*; *βâtâx-juk*, *βâtâx-ku-j* (Seelwische 2016: 372) • PCh *wáht<uk> > Ijw (*h*)wátok [1] 'Enterolobium contortisiliquum'; I'w *wáhtok* 'Albizia inundata'; Mj *wáhtuk* (-ij) 'Albizia inundata' (Drayson 2009: 133; Scarpa 2010: 187; Carol 2018) • PW *wátox^w > Southeastern (Salta) *watux*; 'Wk *xʷátox^w* [1] 'pacará' (Suárez 2014: 270; Claesson 2016: 164)

[1] Iyojwa'aja' and 'Weenhayek show reflexes of *ϕ instead of the expected *w.

***-wáʷk 'bad mood'**

Mk -*wak*, -*wah-aj* (Gerzenstein 1999: 360) • Ni -*βâʷk* (Seelwische 2016: 371) • PCh *-wáʷk > Ijw -*wák* (Drayson 2009: 127) • PW *-wáʷk^w > LB -*wok^w*; Vej [*te*]wak^w-*aje* 'to be in mad mood'; 'Wk -*wáʷk* (Nercesian 2014: 161; Viñas Urquiza 1974: 75; Claesson 2016: 101)

[1] The Maká reflex unexpectedly lacks preglottalization in the coda in the singular form, as attested in the New Testament (e.g. Romans 9:22).

***wäk 'all, each other'**

Mk *wek* 'all' (Gerzenstein 1999: 365) • Ni =*βatf* 'reciprocal'; -*βatf* 'reflexive' (Seelwische 2016: 311; Campbell et al. 2020: 172–173, 299) • PCh *(-)wék / *(-)wek-áʔa... > Ijw *wikʲ<éʔeji>* 'all', <*hi*>*wék* ~ <*hi*>*wékʲ<eʔe>* 'finally'; I'w *kʲ<éehe>* 'all' [1] (Carol 2014a: 83; Drayson 2009: 127, 157; Gerzenstein 1983: 142) • PW *-*wek* 'each other, completely' > LB =*wek* 'each other'; Vej -*wek* 'completely'; 'Wk -*wek*; *[ʔi]wék 'to be together, close to each other' > LB

10 Dictionary

[ʔi]wek; ʷk [ʔi]wek (Nercesian 2014: 247; Viñas Urquiza 1974: 80; Claesson 2016: 482)

[1] The loss of PCh *we- in Iyo'awujwa' is irregular.

Viegas Barros (2013a: 319) compares it to the Proto-Guaicuruan "total quantifier" *-ʔawéʔke ~ *-t'awéʔke (VB 2013b, #720; a suffix found in demonstratives). Alternatively, it could be related to Proto-Guaicuruan *-ʔake 'each other' (Viegas Barros 2013b, #722).

Viegas Barros 2013a: 319 (*wek)

*-wáʔx, *-w(ä)x-ájʰ 'burrow; anus' [1]

Ni -βaʔ, -βaf-ajʰ 'burrow' (Seelwische 2016: 309) • PCh *-wéh; *-wéh-k'álóʔ (*-s) 'buttock' > Ijw -wéh 'anus; container; cave'; -wé-k'óloʔ (-s); Iʷw -wé-k'álóʔ (-s) 'buttock'; Mj -wéh, -weh-éjh 'anus'; -wé ʔelʔ ~ -wé-ʔloʔ 'buttock' (Drayson 2009: 127; Gerzenstein 1983: 169; Carol 2018) • PW *-wéχ, *-wh-ájʰ; *-wéχ-k'álo (*-s) 'buttock' > LB -weχ 'back part, butt'; -wéχ-tʃ'alu 'buttock'; Vej -weh 'opening, anus'; -weh tʃ'alo (-s) [3] 'buttock'; ʷk -wéx, -m-áç; -wéx-k'áloʔ (-s) (Nercesian 2014: 153, 312; Braunstein 2009: 61; Viñas Urquiza 1974: 80; Claesson 2016: 102)

[1] The original semantics of this root must have been that of 'hole, opening'. It is likely that PM *-wáʔx is etymologically the second part of the opaque compounds *-táwäʔx 'cavity, abdominal cavity' and *kowäʔx / *kówäʔx 'hole' (ChW).

[2] The term for 'buttock' in Chorote and Wichí is a compound of *-wáʔx and *-k'áloʔ(?) ~ *-k'álóʔ(?) 'cheek'.

[3] Gutiérrez & Osornio (2015: 60) mistranscribe tʃ' as tʃ in the Vejoz reflex.

Obviously related to Proto-Guaicuruan *-ʔwVʔg 'hole' (Viegas Barros 2013b, #644; cf. Viegas Barros 2013a: 311).

Najlis 1984: 34 (*wehn)

*wé-APPL 'be!'

Ni βe-APPL (Fabre 2014: 146) • PCh *wé-APPL > Ijw wé-APPL (Carol 2014b)

*wijeʔ 'cactus (*Bromelia serra*)'

Ni βijeʔ ~ jijeʔ (-k) [1] (Seelwische 2016: 363, 386) • PCh *wijéʔ > Ijw (h)wijiʔ [2]; Iʷw fʷijiʔ ~ wijiʔ [2]; Mj wijiʔ (Drayson 2009: 157; Gerzenstein 1983: 130; Scarpa 2010: 190; Carol 2018) • PW *ʔwujeʔ(?) [3] > LB huje [4]; Southeastern (Salta) wije [5]; Vej ʔwuje; ʷk ʔwujeʔ (Spagarino 2008: 60; Suárez 2014: 223–224; Gutiérrez & Osornio 2015: 19; Claesson 2016: 115)

[1] The regular reflex βijeʔ (-k) is used in the Chishamnee Lhavos dialect of Nivačle; in other dialects, the irregular variant with j- is attested.

[2] In Iyojwa'aja' and Iyo'awujwa', the initial consonant has an irregular variant hw/fʷ. The absence of a final ʔ in Gerzenstein's (1983) attestation of the Iyo'awujwa' reflex as fʷiji must be a mistranscription.

[3] The Wichí reflex is entirely irregular: the initial consonant is unexpectedly glottalized, and the vowel of the first syllable is reflected as PW **u*. The term may have been influenced by PW **wujés* ‘guinea pig’.

[4] The Lower Bermejeño reflex is entirely irregular. One would expect **weje*.

[5] The form *wije* is attested by Suárez (2014), whose ethnobotanical fieldwork was carried out in Salta with speakers of the Southeastern dialect of Wichí. Although it formally matches the Nivaêle and Chorote cognates (it could go back to PW **wije?*), it should probably be considered a slightly irregular reflex of PW **wuje?* (**weje* would be expected). Note that Suárez does not represent either glottalization in sonorants or word-final glottal stops in her transcription system, so the only irregularity is *i* instead of the expected **e*.

Najlis 1984: 48 (**hwijéj*)

***-wháʔjaʔ ‘spouse’; *[t]whaʔjá-ʔj ‘to marry’ [1]**

Mk *-wheʔje?* (-*l* ~ -*ts*); [*te*]wheʔje-*j* [1] (Gerzenstein 1999: 164) • Ni *-xaʔja* (-*s*) ‘spouse (before one has children)’; [*t*]xaʔja-ʔ*j* (Fabre 2014: 133; Seelwische 2016: 147, 271) • PCh **-hwáʔjaʔ* > Ijw *-hwáʔje-hwa* ‘co-sibling-in-law’; *[*tʰ*]hwaʔjé<*jʔ*> ‘to marry’ > Ijw [*ti*]hwaʔ*ji* [2]; Iʔw *-fʷaji* [2 3]; Mj [*ti*]hwaʔ*jijʔ* (Carol 2014b; Drayson 2009: 151; Gerzenstein 1983: 128; Carol 2018) • PW *[*t*]wháje<*j*> [3] ‘to marry’ > LB [*t(a)*]majej; ʔWk [*t(a)*]májeʔ [4] (Nercesian 2014: 209, 272, 296; Claesson 2016: 388)

[1] The glottalized palatal approximant in the Maká reflex is attested in the New Testament (e.g. Luke 2:36; Romans 16:3).

[2] The word-final *ʔ* is unexpectedly missing in Iyojwaʔajaʔ and Iyoʔawujwaʔ.

[3] Wichí has irregularly lost the glottalization in PM **ʔj* > PW **j*. In Iyoʔawujwaʔ, the corresponding consonant is also attested as *j*, but this is likely a mistranscription.

[4] The expected reflex in ʔWeenhayek would actually be *[*t(a)*]májejʔ.

***[ji]wó ‘to do (light verb)’; *wóʔ-*oj*^h / *wó-...-*ej*^h ‘to look for’**

Mk *woʔ-*oj* / wo-...-*ij** > ‘to look for’ (Gerzenstein 1999: 380) • Ni *βoʔ<*oj*>* ‘to look for’ (Seelwische 2016: 366) • PCh *[*ʔi*]wó / **-wó* ‘to do, to say so’, *[*ʔi*]wóʔ-*oj*^h / **-wóʔ-*oj*^h / **-wó-...-*ej*^h* ‘to say, to want’ > Ijw [*ʔi*]jó / *-wó*; Mj [*ʔi*]jó / *-wó*, [*ʔi*]jóʔ-*oj* / *-wóʔ-*oj** ‘to say, to want’ (Carol 2014a: 78; Drayson 2009: 116; Carol 2018) • PW *[*ʔi*]wó- > LB [*ʔi*]wu-; ʔWk [*ʔi*]wó- (Nercesian 2014: 155; Braunstein 2009: 46; Claesson 2016: 486–508)*

Viegas Barros (2013a: 305) compares the Mataguayan verb for ‘to look for’ with Proto-Guaicuruan **-awiʔa* ‘to hunt’ (absent from Viegas Barros 2013b), which is likely a spurious comparison.

Viegas Barros 2013a: 305 (**-woʔi*) ‘to look for’

***-wó (*-ts) ‘worm’; 3 *ɬ-wó ‘mythological snake’**

Ni *-βoʔ* (-s); *la-βoʔ* (Seelwische 2016: 166, 363) • PCh **-wóʔ* (*-s) > Ijw <ʔa>*wóʔ* (-s); Iʼw/Mj *-wóʔ* (-s) (Drayson 2009: 95; Gerzenstein 1983: 170; Carol 2018) • PW **-wó* (*-s); **ɬ-wó* ‘mythological snake; rainbow’ > LB *lawu*; Vej <i>*wo* ‘worm’; *le-wo* [1]; ʼWk *-woʔ* ‘wart’; <ʔi>*wó-s* ‘worms’; *la-wóʔ* (-lis ~ -*ʔajis*) (Suárez 2014: 77; Nercesian 2014: 47; Viñas Urquiza 1974: 61; Gutiérrez & Osornio 2015: 43; Claesson 2016: 43, 103, 222)

[1] The noun is misprinted as *le-we* in Gutiérrez & Osornio (2015: 43).

Gutiérrez 2015b: 77

***[ʔi]woʼm ‘to throw’**

Mk *[i]wuʼm* ‘to push, to throw’ [1] (Gerzenstein 1999: 380–381) • PCh **[ʔi]wóm-APPL* ‘to add’ > Ijw/Mj *[ʔi]jóm-APPL / -wóm-APPL* (Drayson 2009: 116; Carol 2018) • PW **[ʔi]woʼm* > LB *[ʔi]wum-ʔi* ‘to share’; Vej *-wom* ‘to distribute’; ʼWk *[ʔi]woʼm* ‘to throw, to abandon’ (Nercesian 2014: 402; Viñas Urquiza 1974: 81; Gutiérrez & Osornio 2015: 37; Claesson 2016: 496)

[1] The glottalized coda in the Maká reflex is attested in the New Testament (e.g. Luke 6:42; Matthew 7:5).

***wósitsex (fruit); *wósits-uʼk, *wósits(e)-ku-jʰ ‘Prosopis nigra’**

Mk *ositsax*; *osits-uʼk*, *osits-ik-wi* [1 2] (Gerzenstein 1999: 284) • Ni *βaitsex*; *βaitse-juk*, *βaitse-ku-j* [3] (Seelwische 2016: 313) • PCh **wósis-uk*, **wósis-ku-jʰ* > Ijw *ʔisʰóxso*; *ʔisʰóxs-ok* (-is) [2 4]; Iʼw *wóxsisʰ-uk*, *wóxsis-ki-ʔ*; Mj *wóxfif-uk* ~ *wóxfuf-uk* [5] (Drayson 2009: 111; Gerzenstein 1983: 172; Carol 2018) • PW **wósotsax*; **wósots-ukʷ* [5] > LB *wusutsax*, *wusuts-ekʷ* [6]; Vej *wosotsax*, *wosots-uk*; ʼWk *wósotsax*; *wósots-uk* (Spagarino 2008: 60; Viñas Urquiza 1974: 81; Gutiérrez & Osornio 2015: 19; Claesson 2016: 503)

[1] The absence of preglottalization in the term for the fruit in Maká is attested in a narrative by Unuʼuneiki Patricia (2011: 17). The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekomboʼe ha Tembikuaa Motenondeha 2022: 7).

[2] The loss of **w* in Maká and Iyojwaʼajaʼ is irregular.

[3] The Nivaçle reflex is irregular: one would expect **βositsex* and not *βaitsex*.

[4] The Iyojwaʼajaʼ reflex shows an irregular metathesis of **o* and **i*. The plural form is also not etymological.

[5] In Wichí and optionally in Manjui, the vowel of the second syllable irregularly becomes rounded.

[6] Spagarino (2008: 60) actually gives *wusutasax*, *wusuts-ewk*, which look like typos.

***-woʔ ~ *-wóʔ (*-ts) ‘expert, professional, owner; related to’**

Mk *-woʔ* (-ts) ‘object that serves for X’ (Gerzenstein 1994: 221) • Ni *-βoʔ* (-s) (Seelwische 2016: 166, 363) • PCh **-wóʔ* (*-s) > Ijw *-wó* (-s) [1]; Mj *-wóʔ* (-s)

(Carol 2014a: 79, fn. 6; Drayson 2009: 127; Carol 2018) • PW **-woʔ~ *-wóʔ(-s)* > LB *-wu(-s)*; Vej *-wo*; 'Wk *-woʔ~ -wóʔ(-s)* (Nercesian 2014: 199; Viñas Urquiza 1974: 81; Gutiérrez & Osornio 2015: 51; Claesson 2016: 103)

[1] The absence of a word-final glottal stop in Drayson's (2009) attestation of this noun must be a mistranscription.

***-w(t)s'é (*-l) 'belly'**

Ni *-βts'eʔ(-k)* (Seelwische 2016: 338) • PCh **-ts'éʔ(*-l)* > Ijw *-ts'éʔ(-ʔ)*; I'w *-ts'éʔ(-l)*; Mj *-ts'éʔ(-l)* (Drayson 2009: 126; Gerzenstein 1983: 167; Carol 2018) • PW **-ts'é(*-l^h)* > LB/Vej *-ts'e(-t)*; 'Wk *-ts'éʔ(-t)* (Nercesian 2014: 147, 191; Viñas Urquiza 1974: 56; Gutiérrez & Osornio 2015: 60, 61; Claesson 2016: 101)

***wV'χ, *wV'-ts [1 2] 'large, fat'**

Ni [*tə*]βá'x 'to be of a size' (Seelwische 2016: 371) • PCh **wúh, *wú-s* > Ijw *wúh, wú-s*; I'w *(-)wúh*; Mj *wúh, wú-s* (Drayson 2009: 157; Gerzenstein 1983: 172; Carol 2018) • PW **wúx^w, *wú-s* > LB *wef^w*; Vej *wúh*; 'Wk *wúx^w, wú-s* (Nercesian 2014: 357; Viñas Urquiza 1974: 82; Claesson 2016: 509)

[1] The vowel cannot be securely reconstructed at this time. Nivačle points to PM **ā*, Chorote and Wichí to **u*. The correspondence is similar to the one in PM **-ʷVʔ ~ *-ʷVʔ* 'to climb'.

[2] The plural form is reconstructed based on the evidence of Iyo'awujwa', Manjui, and Wichí. It is thus technically reconstructible only for Proto-Chorote–Wichí.

Fabre (2014: 308) compares the Mataguyan root with Enlhet *wah* 'big' (Unruh & Kalisch 1997: 659).

***ʷwátshan ~ *ʷwátʂan 'to be healthy, alive'**

Ni *βatsxan* 'to be healthy' (Seelwische 2016: 357) • PCh **ʷwásaʔn* [1] 'to be alive' > Ijw *ʷwáxsaʔn*; Mj *ʷwáxsaʔn* 'to be green, living (plant)' (Drayson 2009: 163; Carol 2018) • PW **ʷwátshan* 'to be green, blue, alive' > LB *wats^han* [2 3]; Vej *ʷwats^han ~ ʷwatsan* [3 4]; 'Wk *ʷwátʂan* (Nercesian 2014: 106, 262; Gutiérrez & Osornio 2015: 8, 42; Claesson 2016: 106)

[1] The glottalization of the final consonant in Chorote is irregular (both Nivačle and Wichí point to its absence in PM). A superficially similar yet distinct root is PCh **-wátʂoh* 'green, raw' > Ijw *-wátʂo* 'green, alive'; I'w *-wátso* (probably a mistranscription for *-wátʂo*) 'green'; Mj *[ʔi]jéts'o-one / -wátʂo-one* 'to eat raw' (Drayson 2009: 127; Gerzenstein 1983: 168; Carol 2018). In principle, it is conceivable that **-wátʂoh* and **ʷwásaʔn* ultimately go back to **-ʷwátʂo(?)X* (with irregular dissimilation) and **-ʷwátʂan*.

[2] The absence of glottalization in the initial consonant in Lower Bermejeño is irregular.

[3] Both in Lower Bermejeño (Braunstein 2009: 60) and in Vejoz (Viñas Urquiza 1974: 79; Fernández Garay 2006–2007: 212) this form has been documented as *watsan*, which could be a mistranscription.

[4] Gutiérrez & Osornio (2015: 8, 42) attest both the expected form ^ʔ*wats^han* and the apparently irregular ^ʔ*watsan*.

Najlis 1984: 28 (**wātshan*)

***^ʔ*wánXáɬáχ*, *^ʔ*wánXáɬá-ts* ‘rhea’**

Mk *waatɬaχ* (-*its* ~ *waatɬe-ts*) [1] (Gerzenstein 1999: 360; UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 20) • Ni *βánxáɬáχ*, *βánxáɬá-s* (Seelwische 2016: 370) • PCh *^ʔ*wánhlâh* (*-âs ~ *^ʔ*wánhlâ-s*) [2 3] > Ijw ^ʔ*wánhla* (-*has* ~ -*s*); I’w *ámhla* (-*s*) [4]; Mj *ʔámhla* (-*as*) [4] (Drayson 2009: 163; Gerzenstein 1983: 121; Carol 2018) • PW *^ʔ*wá^ʔnɬáχ*, *^ʔ*wá^ʔnɬá-s* [2 5] > LB *wonɬoχ*; ’Wk *wá^ʔ(n)ɬáχ*, *wá^ʔ(n)ɬá-s* (Nercesian 2014: 170; Claesson 2016: 475)

[1] The loss of PM **nX* in Maká is unprecedented. The plural variant *waatɬe-ts* is in all likelihood innovative, its shape having been influenced by the Maká nouns whose PM etymon ended of **aχ* (plural **a-ts*), which regularly yielded Maká *aχ*, plural *-e-ts*. The word-initial sonorant is attested as non-glottalized in the sources that distinguish between plain and glottalized sonorants (UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 20).

[2] The vowel of the medial syllable was irregularly lost in Chorote and Wichí.

[3] The plural variant *^ʔ*wánhlâh-âs* in Chorote is likely innovative. The original plural is preserved as a variant in Iyojwa’ja’.

[4] The Iyo’awujwa’ and Manjui reflexes are irregular; one would expect *^ʔ*wánhla*, *^ʔ*wánhlah-as*.

[5] In Wichí, the preglottalization has apparently moved from the initial segment to **n* and was later lost in Lower Bermejeño and retained in ’Weenhayek (with an optional loss of the nasal consonant).

Najlis 1984: 42 (**wahnhlâ*); Viegas Barros 2002: 144 (**wam(xa)ɬaχ*)

***^ʔ*wäle^ʔk* ‘to walk’; *^ʔ*wälke-^ʔmat* ‘to limp’**

Mk -<*i*> ^ʔ*welki-^ʔmet* [1] ‘to limp’ (Gerzenstein 1999: 216) • Ni *βaklê^ʔtf* ‘to walk’, *βaktfe-mat* ‘to limp’ (Seelwische 2016: 312) • PCh **[ʔi]^ʔwélek* > Mj *[ʔi]^ʔjílek* / -^ʔ*wélek* (Carol 2018) • PW *^ʔ*weleq* > LB ^ʔ*wileq* [2]; Vej ^ʔ*welek* [3]; ’Wk ^ʔ*welek* ‘to camp’ (Nercesian 2014: 311; Gutiérrez & Osornio 2015: 37; Claesson 2016: 109)

[1] The preglottalization in the root-initial consonant in Maká is inferred based on the Chorote and Wichí cognates; the suffix is attested with a glottalized nasal, for example, in the New Testament (*eqfe-^ʔmet* ‘ill’; Revelations 8:12).

[2] The vowel *i* in the Lower Bermejeño reflex, as attested by Nercesian (2014: 311), is entirely unexpected. The etymological vowel *e* is documented by Braunstein (2009: 61) in *welek-ti* ‘to walk’, but that source fails to transcribe the glottalization in the stem-initial consonant.

[3] Viñas Urquiza (1974: 80) documents the verb as *welek* ‘to travel’, with no glottalization in *w*.

Obviously related to Proto-Guaicuruan **-awalek* ‘to walk’ (Viegas Barros 2013b, #163; cf. Viegas Barros 2013a: 306).

Viegas Barros 2013a: 306 (**-welek*)

***[ji]’wán ‘to see’**

Mk [ji]’wen (Gerzenstein 1999: 366; Braunstein 1987: 203) • Ni [ji]’βan (Seelwische 2016: 314) • PCh **[ʔi]’wén* > Ijw [ʔi]’wí’n / -’wé’n; I’w [i]’ín / -wén; Mj [ʔi]’jín / -’wén (Carol 2014a: 77; Drayson 2009: 117; Gerzenstein 1983: 44, 169; Carol 2018) • PW **[hi]’wén* > LB [hi]’wen ‘to see; to have’; Vej [hi]’wen [1]; ’Wk [hi]’wén (Nercesian 2014: 172, fn. 31, 339; Gutiérrez & Osornio 2015: 41; Claesson 2016: 110)

[1] The Vejoz root is attested as *-wen* in Viñas Urquiza (1974: 80) and Fernández Garay (2006–2007: 212).

Obviously related to Proto-Guaicuruan **-wen* ‘to see; to look’ (Viegas Barros 2013b, #626; cf. Viegas Barros 2013a: 306).

Viegas Barros 2013a: 306 (**-wen*)

***-’wät ‘place’**

Mk -’wet [1] (*-its*) (Gerzenstein 1994: 221) • Ni -’βat, -βt-es (Fabre 2014: 113–114) • PCh **-’wét* > Ijw -’wét (*-is*); I’w -wét (*-is*); Mj -’wét (*-es*) (Drayson 2009: 127; Gerzenstein 1983: 169; Carol 2018) • PW **-’wet* > LB/Vej -’wet (*-es*) [2] ‘place; house’; ’Wk -’wet (Nercesian 2014: 153, 154, 191; Gutiérrez & Osornio 2015: 52; Claesson 2016: 56)

[1] The Maká reflex functions as a derivational suffix. The glottalization in its initial sonorant is attested in the New Testament in forms such as *l-’exinqa-’wet* ‘field’ (Mark 13:16) or *ʔe-wenq’en-he-’wet* ‘her/his plantation’ (Matthew 13:3), though not in *wit-aqha-wet* ‘market’ (John 2:16).

[2] The Vejoz root is attested as *-wet* in Viñas Urquiza (1974: 80) and Fernández Garay (2006–2007: 212, 219).

Viegas Barros (2013a: 318) compares this root to the Proto-Guaicuruan root for ‘home’ (**-’wat’a* ‘home, camp, family’; Viegas Barros 2013b, #642).

Najlis 1984: 48 (*wet*); Viegas Barros 2013a: 319 (**-wet*)

***-’włi? ~ *-’włi?, *-’włi-ts ‘rib’**

Mk -’włi? (*-ts*) [1] (Gerzenstein 1999: 366) • Ni -’βti / -βti? (*-s*) (Seelwische 2016: 336) • PCh **-hłi<s>* [2], **-hłis-is* > Ijw *-hlés, -hlés-is*; I’w *-hlés, -hlés-is*; Mj *-hléis, -hléif-is* (Drayson 2009: 119; Gerzenstein 1983: 174; Carol 2018)

[1] The glottalization in the root-initial sonorant is attested in Unu’üneiki Patricia (2011: 17) and in the New Testament (Acts 12:7; John 19:34; John 20:20).

[2] The PM plural form has been reanalyzed as singular in Chorote.

***-²wo, *-²wó-l ‘neck’**

Mk *-wo<nxe?* (*-l ~ -ts*) [1] (Gerzenstein 1999: 379) • Ni *-²βo?* (*-k*) [2] ‘neck, nape’ (Campbell et al. 2020: 80) • PCh **-²wó?* (**-l*) > Ijw *-²wó?* (*-²l*) (Drayson 2009: 128) • PW **-²wo, *-²wó-l^h* > LB *-²wu* (*-j*) [3]; *’Wk -²wo* [4]; *’Wk -²wo?* (*-t*) (Nercesian 2014: 163; Gutiérrez & Osornio 2015: 60; Claesson 2016: 57)

[1] The formative *-nxe?* in Maká does not appear to be morphologically segmentable, but it is also found in *-fonxe?* ‘ankle’ and other body-part terms. The root-initial consonant unexpectedly lacks glottalization, as attested in the New Testament (Luke 15:5).

[2] Seelwische (2016: 353) documents the initial consonant of this stem as β .

[3] The Lower Bermejeño plural suffix does not match the evidence from Nivačle and *’Wee-nhayek*.

[4] The Vejoz root is attested as *-wo* in Viñas Urquiza (1974: 81).

Najlis 1984: 9, 18 (**wo, 2 *a-wo*); Gutiérrez 2015b: 255

***(-)²wo²j ‘blood’**

Ni *βo²j, -²βoj-*ej** [1] (Seelwische 2016: 366, 368; Campbell et al. 2020: 71, 515) • PCh **(-)²wój-is* (*plurale tantum*) > Ijw *-²wój-is*; *’w -wój-is*, *Mj (-)wój-is* (Drayson 2009: 128; Gerzenstein 1983: 170; Carol 2018) • PW **²woj-ís / *-²wój-is* (*plurale tantum*) > LB *-²wuj-is ~ -(²)wij-is* [2]; *’Vej -woj-is ~ -²woj-s*; *’Wk -²wój-is / ²wój-ís* (Nercesian 2014: 48, 152, 164; Viñas Urquiza 1974: 82; Gutiérrez & Osornio 2015: 69; Claesson 2016: 54, 114)

[1] Seelwische (2016: 366, 368) documents the initial consonant as β not only in the singular (absolute) form, but also in the plural (relational) form of this stem.

[2] The variants *-²wij-is ~ -wij-is*, attested in Lower Bermejeño Wichí, are irregular.

***²wósâ(°)q ~ *²wósâ(°)k ‘butterfly’**

Ni *βosâk, βosâkl-is ~ βosâkl-ij* (ShL *βosok, βosokl-is*) [1] (Stell 1987: 125; Gutiérrez 2015b: 119; Seelwische 2016: 367; Campbell et al. 2020: 99) • PCh **²wósak* > Ijw *²wóxsak (-is)* (Drayson 2009: 163)

[1] The Nivačle plural form must be an analogical development because it points to a stem-final **l* in PM, which is incompatible with the Chorote datum. Alternatively, the Iyojwa’aja’ word could be a Nivačle loan.

Fabre (2014: 308) compares the Nivačle reflex to Enlhet, Enxet, Angaité, Sanapaná, Guaná *seleklek* ‘butterfly’ (Unruh & Kalisch 1997: 603; Wheeler 2020: 23, 92; Elliott 2021: 559; Kalisch 2023: 184), which is obviously a spurious comparison.

Najlis 1984: 45 (**wohsâk*)

***-²wut ~ *-²wút (fem. *-²wút-e?) ‘riding animal’**

Mk *-²wut (-its)* (fem. *-²wut-i?* (*-j*)) [1] (Gerzenstein 1999: 382) • PW **-²wút<e>* (**-j^h*) [2] > LB *[?i]wu-²wete-j-a* ‘to ride an animal’; Vejoz or Guisnay

-^ʔwute (-j) ‘mount, bicycle’; ^ʔWk -^ʔwúte? (Nercesian 2014: 267; Lunt 2016: 109; Claesson 2016: 57)

[1] The preglottalization in ^ʔw is attested in the New Testament (e.g. Luke 10:34).

[2] The Wichí reflex continues the erstwhile feminine form. It is formally possible to include PW *^ʔwut, *^ʔwút-es ‘pole, log, bar, crossbar, crossbeam, handle’ > Vejoz or Guisnay -^ʔwut (-es); ^ʔWk -^ʔwut, -^ʔwút-es (Lunt 2016: 109; Claesson 2016: 57), which would reflect the erstwhile masculine form, but this runs into semantic difficulties. If these etyma are shown to be related, the PM masculine form should be reconstructed with an unaccented vowel.

*-^ʔwVʔ ~ *-^ʔwVʔ [1] ‘to climb’

Mk we^ʔt (Gerzenstein 1999: 366; UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 3) • Ni βá^ʔt (Seelwische 2016: 371) • PCh *[ʔi]^ʔwút > Ijw [ʔi]^ʔjút / -^ʔwút; I’w -wúl; Mj [ʔi]^ʔjút / -^ʔwút (Drayson 2009: 118; Gerzenstein 1983: 172; Carol 2018) • PW *[t]^ʔwut ~ *[t]^ʔwút > LB [t(a)]^ʔwet; Vej -wut-o; ^ʔWk [t(a)]^ʔwut ~ [t(a)]^ʔwút (Nercesian 2014: 128, 258; Viñas Urquiza 1974: 82; Claesson 2016: 347)

[1] The vowel cannot be securely reconstructed at this time. Maká points to PM *a, Nivačle to *á, Chorote and Wichí to *u. The correspondence is similar to the one in PM *wVx ‘large’. Najlis 1984: 24 (*wulq); Gutiérrez 2015b: 254

*-xa, *-xá-l ‘price’

Ni -faʔ(-k) (Seelwische 2016: 238) • PW *-ha, *-há-l^h > LB -ha, ^ʔWk -haʔ, -há-t (Nercesian 2014: 273, 291; Claesson 2016: 57)

*...xa^ʔχ, *...xáh-aj^h [1] ~ *Xon-xa^ʔχ, *Xon-xáh-aj^h ‘night’

Mk <na>xa^ʔχ [2], <na>xa-j (Gerzenstein 1999: 266) • Ni <xon>fa^ʔx ‘midnight’, <xon>fax-aj ‘every night’ [3] (Seelwische 2016: 150) • PCh *<ʔa>h<n>áh ~ *<ʔá>h<n>áh (*-as) [5] > Ijw ʔahnáh (-as); I’w ahnáh, ahná-as; Mj ʔahnáh, ʔahná-as (Carol 2014a: 91; Drayson 2009: 93; Gerzenstein 1983: 124; Carol 2018) • PW *<hon>aχ, *<hon>áh-aj^h ‘afternoon, night’ [5] > LB hunax ‘afternoon’; Vej honax, honah-aj ‘afternoon’; ^ʔWk honax, honáh-aç; *honá<tsi> ‘night’ > LB hunatsi; Vej honatsi; ^ʔWk honátsi?(-s) (Nercesian 2014: 344; Viñas Urquiza 1974: 57; Gutiérrez & Osornio 2015: 43, 70; Claesson 2016: 153)

[1] We speculate that this was a suffix in PM. In individual languages, it is attached to otherwise unattested roots: Maká na-, Nivačle xon-, Chorote *ʔan- or *ʔán-, and Wichí *hon- (the latter two prefixes are also found in the word for ‘earth’). Chorote *ʔan- ~ *ʔán- might be cognate with Nivačle xon-, Wichí *hon-.

[2] The preglottalized coda in the Maká singular form is attested in the New Testament (e.g. John 11:10).

[3] This expression goes back to a PM plural form.

[4] The Chorote plural form is non-etymological.

[5] The development PM **nx* > PW **n* is irregular.

Najlis 1984: 10, 27, 41 (**hnahn*)

***-xájk'u(?) (*-l) 'egg'**

Ni *-fajk'u* (-k) (Seelwische 2016: 357) • PCh 3 **hl-éjk'u?* (*-l) > Ijw 3 *hl-éts'u?* (-'l); I'w 3 *l-é'k'u?* (-l); Mj 3 *hl-é'p'u?* (-l) 'egg, pulp, tree heart' (Drayson 2009: 131; Gerzenstein 1983: 146; Carol 2018) • PW **-t-ík'u* (*-l^h) [1] > LB *t-etf'e* (-t); Vej *-t-itf'u*; 'Wk *-t-ík'u?* (-t) (Nercesian 2014: 191; Viñas Urquiza 1974: 66; Claesson 2016: 75)

[1] It is uncertain whether PW **l* is the regular outcome of PM **áj*.

Rejected: Despite a superficial similarity to the aforementioned forms, Maká *tihí?* (-j) shows no regular correspondence with PM **-xéjk'u* (*-l), whose expected reflex in Maká would be **-xijk'u* (*-l).

Najlis 1984: 22, 48 (**hle'u*); Campbell & Grondona 2007: 16

***-xáte'k, *-xáthe-j^h [1] 'head'**

Ni *-fate'tf*, *-fatxe-s* (ShL *-fatitf*, *-fatxi-s*) (Seelwische 2016: 357) • PCh **-hétek*, **-héhte-j^h* > Ijw *-hétik*, *-héte-l* [2]; I'w *-hétik*, *-héte-j* [2]; Mj *-hétek*, *-héhte-j* (Carol 2014a: 90, 98; Gerzenstein 1983: 146; Carol 2018) • PW **-t-éteq*, **-t-éthe-j^h* > LB *-t-eteq*, *-t-et^he-j*; Vej *-t-etek*; 'Wk *-t-étek*, *-t-ét^he-ç* (Nercesian 2014: 166, 192; Viñas Urquiza 1974: 66; Gutiérrez & Osornio 2015: 60, 61; Fernández Garay 2006–2007: 217; Claesson 2016: 74, 204, 300)

[1] The plural form is reconstructed based on the evidence of Iyo'awujwa', Manjui, and Wichí. It is thus technically reconstructible only for Proto-Chorote–Wichí.

[2] The vowel *i* in the singular form in Iyojwa'aja' and Iyo'awujwa' is not etymological, as is the choice of the suffix in the plural form in Iyojwa'aja'.

Fabre (2014: 308) compares the Mataguayan root with the Enlhet–Enenlhet term for 'head': Enlhet *-pa'tek* / *-ka:tek*, Enxet *-pa:tek* / *-qa:tek*, Enenlhet–Toba *-patek* / *-qatek*, Sanapaná *-patek* / *-katek*, Angaité *-pa'tek*, Guaná *-pa'tek* / *-(p)qatek* (Unruh & Kalisch 1997: 144; Unruh et al. 2003: 186, 308; Gomes 2012: 168, 173; Wheeler 2020: 92; Elliott 2021: 125, 677; Kalisch 2023: 84). The root is also similar to Proto-Guaicuruan **-t'ek* 'hair; to brush one's hair', (?) **(a)t'ek* 'head, hair' (Viegas Barros 2013b, #558).

Najlis 1984: 23, 34, 48 (**ethe*, PL **ethe-j* ~ **ethe-s*); Viegas Barros 2002: 142 (**-xetik*); Campbell & Grondona 2007: 16, 22; Fabre 2014: 308; Gutiérrez 2015b: 64

***xéjã? (*-l) 'bat'**

Mk *xaja?* (-l) [1] (Gerzenstein 1999: 386; UNICEF & Tekombo'e ha Tembi-kuaa Motenondeha 2022: 7) • Ni *fejã* (-k) [2] (Seelwische 2016: 240) • PCh **<?a>héja?* (*-l) [3] > Ijw *?ehéje?* (-jis) [4]; I'w *ahéje?* (-l); Mj *?ahéje?* (-l) (Drayson 2009: 96; Gerzenstein 1983: 123; Carol 2018)

[1] The reflex of the vowel of the initial syllable in Maká is entirely irregular.

[2] In the Yita' Lhavos dialect of Nivaçle, the vowel of the initial syllable is irregularly raised to *i*.

[3] In Chorote, an element **ʔa-* of unclear origin was appended to the root, and PM **ã* is unexpectedly reflected as **a*.

[4] The Iyojwa'aja' plural form is non-etymological.

Viegas Barros 2002: 142 (**(V)xejAʔ*)

***xélâ(?)X₁₂ (fruit), *xélâ-juʔk (tree) 'plant sp.'**

Ni *seklâx* 'sutia fruit (*Solanaceae*)'; *seklâ-juk*, *seklâ-ku-j* '*Prosopis sp.* tree' (Seelwische 2016: 240) • PCh **hél<ek>*, **hél<ke>-j^h* '*Tabebuia nodosa*' > Ijw *hélik*, *hélik^j-et* ~ *hélki-ʔ* [1]; I'w *hélik*, *hélki-ʔ*; Mj *hélek*, *hélki-j* (Drayson 2009: 119; Gerzenstein 1983: 173; Carol 2018) • PW **hél<ek^w>* > LB *helek^w*; Vej *helek*; 'Wk *hélek* (Spagarino 2008: 59; Suárez 2014: 205; Viñas Urquiza 1974: 57; Claesson 2016: 148)

[1] The final glottal stop in Ijw *hélki-ʔ* is unexpected.

***-xíj^h 'recipient'**

Mk *-xij* (Gerzenstein 1994: 221) • Ni *-fij / -xij* (after $V_{[+back]}(C_{[+grave]})$) (*-is*) (Fabre 2014: 99–100; Campbell et al. 2020: 129) • PW **-híh*, **-hí-s* > LB *-hi (-s)*; 'Wk *-híh*, *-hí-s* (Nercesian 2014: 215, 393; Claesson 2016: 58)

Viegas Barros (2013a: 316) compares it to the Proto-Guaicuruan locative suffix **-ʔgi* (Viegas Barros 2013b, #790).

Viegas Barros 2002: 143 (**-xij*); Viegas Barros 2013a: 316 (**-hij*)

***xnáqha(?)j (*-its) 'fog'**

Ni *snakxaj* ~ *snakxaj (-is)* (Stell 1987: 110; Seelwische 2016: 244) • PCh **ʔihnáhqajʔ (*-is)* [1] > Mj *ʔihn^(j)éhkajʔ (-is)* (Hunt 1994)

[1] It is not clear why Chorote reflects PM **xn-* as **ʔihn-* here (cf. the reflex **n-* in PM **xnáwâp*). Rejected: Despite superficial similarity, Maká *xunkhaj* 'fog' (Gerzenstein 1999: 393) and Iyojwa'aja' *sin'ákaʔ* 'fog' (Drayson 2009: 145) show no regular correspondence with PM **xnáqhaj*. They must have been borrowed from Nivaçle *snakxaj*, just like Mk *xunkhaj* < Ni *ʃklâkxaj* ~ *sklâkxaj* 'wild cat'. A problematic fact for our hypothesis is that the Iyojwa'aja' (unlike Iyo'awujwa' and Manjui) have not been demonstrably in contact with the Nivaçle until recently. Alternatively, one could view the Iyojwa'aja' form as inherited from PM **snáqhaj*, in which case the Manjui form would have to be explained as an early loan from Nivaçle (however, it would be more difficult to account for its phonological adaptation pattern than if the Manjui datum is considered cognate with the Nivaçle one).

Najlis 1984: 12, 25, 38 (**snaqaj*); Campbell & Grondona 2007: 15

***xnáwáʔp** ‘spring’ [1]

Mk *xinawaʔp*, *xinawap-its* (Gerzenstein 1999: 389; Tekombo’e ha Tembikuaa Motenondeha 2020: 23–25) • Ni *fnaβãp* ~ *fnaβãp* (Gutiérrez 2015b: 64; Seelwische 2016: 244) • PCh **náwop* [2] > Ijw/Iʔw *náwop* (Drayson 2009: 140; Gerzenstein 1983: 150) • PW **xnáwop* [2] > LB *nawup*; Vej *nawop* ~ *inawop*; ʔWk *?ináwop* (Nercesian 2014: 47; Viñas Urquiza 1974: 67; Gutiérrez & Osornio 2015: 43; Claesson 2016: 32)

[1] This noun is obviously related to PM **-áwã* ‘flower’ and literally means ‘flower season’.

[2] The raising of PM **ã* to PCh/PW **o* is not known to be regular.

Najlis 1984: 33 (**hnawɔp*); Viegas Barros 2002: 142 (**xinawap*); Gutiérrez 2015b: 64

***xókhajex** ‘Muscovy duck’

Mk *xokhejaχ* [1], *xokheji-ts* (Gerzenstein 1999: 390; UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 5) • Ni *xokxajex* (-is) ‘Muscovy duck; canoe’ (Seelwische 2016: 149) • PCh **qajáh* (*-Vs) [2] > Iʔw *kajé* (-es); Mj *kajéh*, *kajé-es* ‘Muscovy duck; canoe’ (Gerzenstein 1983: 136; Carol 2018) • PW **xʷóqʔjaχ* [3] > LB *fʷuʔjaχ* [4]; ʔWk *xʷóqʔjax*; **xʷóqʔje-taχ* [3] > Vej *hʷok(j)e-tah* (Spagarino et al. 2013 [2011]; Gutiérrez & Osornio 2015: 20; Claesson 2016: 174)

[1] The absence of preglottalization in Maká is attested in a narrative by Unu’üneiki Patricia (2011: 17), as well as in Braunstein (1987: 67).

[2] The Chorote reflex is irregular. One would expect PCh ***hóhqajah*.

[3] The Wichí reflex is irregular. One would expect PW ***xókhajax*.

[4] Nercesian (2014: 51) mistranscribes the Lower Bermejeño reflex as *fʷujax*.

Najlis 1984: 44 (**hwokajehn*)

***xpáʔk** ~ ***xpáʔk** ‘straw’

Mk <hupak> (Beliaeff 1931: 62), *xupek* ‘*Imperata* sp.’ [1] (Braunstein 1987: 83) • Ni *xpáʔk*, *xpâk-uj* (Seelwische 2016: 156) • PCh **?ipák* > Ijw *?ipák*, *?ipákʔ-et*; Iʔw *ipék* (Drayson 2009: 109; Gerzenstein 1983: 131)

[1] The Maká form attested by Braunstein (1987) is surprising; one would expect **xupaʔk*.

Fabre (2014: 306) suggests that the Nivaçle reflex is related to the Enlhet–Enenlhet term for ‘grass’ – Enlhet, Enenlhet–Toba, Guaná *paʔat* ‘grass, house’, Enxet, Sanapaná *paʔat* ‘grass’ (Unruh & Kalisch 1997: 536; Unruh et al. 2003: 334; Gomes 2012: 140; Elliott 2021: 210; Kalisch 2023: 78) – via borrowing. This possibility seems unlikely to us.

Najlis 1984: 9, 18, 25, 28 (**ipháʔk*)

***xunxátaχ** (fruit); ***xunxáta-(ju)ʔk** (tree); ***xunxáta-kat** (grove) ‘tusca (*Aca-cia aroma*)’

Mk *xunxetaχ*; *xunxete-ʔk*; *xunxete-ket* [1] (Gerzenstein 1999: 394) • Ni *xunfataχ*; *xunfata-juk*; *xunfata-tfat* (Seelwische 2016: 159) • PCh **?ihná-tah*; **?ihnáta-k*; **?ihnáta-kat* > Ijw *?ihnétah*; *?ihnétá-k*; –; Iʔw –; *ihnétá-k*;

ihn'éta-ket; Mj —; *ʔihn(i)éta-k*; — (Drayson 2009: 98; Gerzenstein 1983: 133; Carol 2018) • PW **xnhátaχ*; **xnháte-q* > LB *ɲataχ*; —; Southeastern (Salta) *ʔiɲataχ* ~ *nataχ*; *ʔiɲate-q* ~ *nate-q*; Vej —; *ɲate-k* [2]; 'Wk *ʔiɲátaχ*; *ʔiɲáte-k* (Spagarino 2008: 60; Nercesian 2014: 52; Suárez 2014: 265; Gutiérrez & Osornio 2015: 18; Claesson 2016: 32, 33)

[1] The absence of preglottalization in the term for the fruit in Maká is attested in Braunstein (1987: 77). The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo'e ha Tembikuaa Motenondeha 2022: 7).

[2] The Vejoz reflex is mistranscribed as *nate-k* in Viñas Urquiza (1974: 125).

Najlis 1984: 34, 47 (**(hnu)hnetak* ~ **hnatak*); Viegas Barros 2002: 142 (**xunxetek*); Campbell & Grondona 2007: 16, 22; Gutiérrez 2015b: 64

**xu(°)p* 'grass'

Mk *xup* <'el> [1] (Gerzenstein 1999: 158) • PCh **húp*, **hup-áj^h* > Ijw *hóp*; I'w *hóp* 'maize', *hup-áj* 'grass'; Mj *hóp*, *hup-ájh* 'maize' (in plural also 'grass') (Drayson 2009: 128; Gerzenstein 1983: 176; Carol 2018) • PW **hup* (**-új^h*) 'grass; house made of hay' > LB *hep* (-ej); Vej *hup* (-uj); 'Wk *hup* (-úç) (Nercesian 2014: 161, 327; Viñas Urquiza 1974: 58; Claesson 2016: 158)

[1] We have no explanation for the element -'el in Maká. Braunstein (1987: 83) gives the form *xupet*.

Rejected: Najlis (1984: 33) includes Ni *t-u'p* 'its nest' under this etymology, which is obviously incorrect.

Najlis 1984: 33 (**hnup*); Viegas Barros 2002: 143 (**xup*)

**[ji]X₁₃o(ʔ) ~ *[ji]X₁₃ó(ʔ)* 'to go'; **[ji]X₁₃óʔ-xä'neʔ* 'to lie down'

Ni *[ji]xoʔ* 'to advance'; *[ji]xoʔ-xane* 'to lie down' (Seelwische 2016: 149) • PCh **[ʔi]hóʔ* > Ijw *[ʔi]hjóʔ / -hóʔ*; I'w *-hó-APPL*; Mj *[ʔi]hjóʔ / -hóʔ*; **[ʔi]hó-heʔn(eʔ)* 'to lie down' > Ijw *[ʔi]hjó-hweʔn / -hó-hweʔn*; I'w *-hó-ʔneʔ*; Mj *[ʔi]hjó-oʔneʔ / -hó-oʔneʔ* (Carol 2014b; Drayson 2009: 97; Gerzenstein 1983: 176; Carol 2018) • PW **[ji]ho(ʔ) ~ *[ji]hó(ʔ)* > LB *[ji]hu-APPL*; Vej *-ho*; 'Wk *[ja]hó-APPL* (Nercesian 2014: 265, 329; Viñas Urquiza 1974: 57; Claesson 2016: 151–156)

Najlis 1984: 32 (**hnowet* 'bed')

**X₁₃óʔk* 'Bulnesia sarmientoi'

Ni *xoʔk*, *xok-is* (Seelwische 2016: 150) • PCh **hók* > I'w *hók*, *-iʔ*; Mj *hók* (-ej) (Gerzenstein 1983: 176; Carol 2018) • PW **hók^w* > LB *huk^w*; Vej *hok* [1]; 'Wk *hók* (Nercesian 2014: 193; Viñas Urquiza 1974: 57; Gutiérrez & Osornio 2015: 18; Fernández Garay 2006–2007: 218; Claesson 2016: 152)

[1] The absence of labialization in the reflex of PW **-k^w* in Vejoz is unexpected.

Najlis 1984: 17 (**hno-uk*); Campbell & Grondona 2007: 19 ('lapacho tree', with the suffix **-taχ*)

***X₁₃ó't** ‘sandy place’

Ni *xo't*, *xot-oj* (Seelwische 2016: 151) • PCh **hót* > Ijw *hót*; Mj *hót (-ej)* ‘sand’ (Drayson 2009: 128; Carol 2018) • PW **hót* > 'Wk *hót* (Claesson 2016: 154)

***-X₁₃u'k, *-X₁₃ú-j^h** ‘firewood’

Ni *-xu'k*, *-xu-j* (Seelwische 2016: 160) • PCh **(?ítàh)-huk* > I'w *éjti-f^wuk* [1] (Gerzenstein 1983: 126) • PW **-huk^w*, **-hú-j<is>* > 'Wk *-huk*, *-hú-jis* (Claesson 2016: 38, 59)

[1] Iyo'awujwa' *f^w* could be a mistranscription (*pro* the expected reflex *h*) on Gerzenstein's (1983) part.

***[ji]X₁₃út** ‘to push’

Ni *[ji]xut* ‘to give’ (Seelwische 2016: 159) • PCh **[?i]hút* > Ijw *[?i]hjút* / *-hót*; Mj *[?i]hjút* / *-hót* (Drayson 2009: 97; Carol 2018) • PW **[ji]hút* > LB *[ji]het-tsi*; Vej *-hut*; 'Wk *[ja]hút* (Braunstein 2009: 63; Viñas Urquiza 1974: 58; Claesson 2016: 159)

***(?a)X₁₃útsa(°)χ, *(?a)X₁₃útsha-ts** [1] ‘crested caracara’

Ni *xutsax*, *xutsxa-s* (Seelwische 2016: 159) • PCh **(?a)húsah*, **(?a)húsa-s* > Ijw *?awúxse (-jis)* [2]; I'w *ohúxsa*, *ohúxse-s* [3]; Mj *?ahóxsa* ~ *hóxsa (-s)* (Drayson 2009: 95; Gerzenstein 1983: 154; Carol 2018) • PW **?ahútsaχ*, **?ahútsha-s* ‘crested caracara; kind of dance’ > LB *?ahetsaχ* ‘crested caracara’; Vej *ahutsah* ‘dance’; 'Wk *?ahútsax*, *?ahúts^ha-s* (Nercesian 2014: 66; Viñas Urquiza 1974: 50; Claesson 2016: 10)

[1] The form without **?a-* is reflected in Nivaçle and Manjui. In Chorote and Wichí, a reflex of **?a-* is found.

[2] The reflex *w* (< PCh **h*) and the plural suffix in Iyojwa'aja' are irregular.

[3] The Iyo'awujwa' reflex is somewhat irregular: one would expect **ahóxsa* (*-s).

Campbell & Grondona 2007: 19

***...X₂₃a't, *...X₂₃át-its** ‘earth, land’ [1]

Ni <*kots*>*xa't*, <*kots*>*xat-is* (YL <*kuts*>*xa't* [2]) (Gutiérrez 2015b: 38, fn. 19; Seelwische 2016: 155) • PCh **<?a>h<n>át* ~ **<?ã>h<n>át* (*-es) > Ijw *?ahnát (-is)*; I'w *ahnát (-is)*; Mj *?ahnát (-es)* (Drayson 2009: 93; Gerzenstein 1983: 124; Carol 2018) • PW **<hon>hat*, **<hon>hát-es* > LB *huṇat*; Vej *hoṇat (-es)*; 'Wk *hoṇat*, *hoṇát-es* ~ *hoṇát-ił* (Nercesian 2014: 48; Gutiérrez & Osornio 2015: 43; Claesson 2016: 154)

[1] We speculate that this was a suffix in PM. In individual languages, it is attached to otherwise unattested roots: Nivaçle *kots-*, Chorote **?an-* or **?ã-*, and Wichí **hon-* (the latter two morphemes are also found in the word for ‘night’). Chorote **?an-* ~ **?ã-* is likely cognate with Wichí **hon-* and goes back to Proto-Chorote–Wichí **X₁₃on-*.

[2] In the Yita' Lhavos dialect, *o* is unexpectedly raised to *u* in this word.

[3] The Vejoz reflex is mistranscribed as *honat* in Viñas Urquiza (1974: 57).

Najlis 1984: 32 (**hnat*)

***(-)X₂₃pél (*-its) 'shadow, image'**

Ni *-xpek*, *-xpek̄-es* (ShL *-xpik*, *-xpik̄-is*) [1] (Stell 1987: 124–125; Seelwische 2016: 155) • PCh **-pél* (**-is*) > Ijw *-pé'l*, *-pél-is*; I'w *-pél<uk>* (*-is*); Mj *-péil<ik>*, *-péihl<i>-j* [2] (Drayson 2009: 124; Gerzenstein 1983: 155; Carol 2018) • PW **hpél^h* / **-hpe^h* > LB *hipet* / *-pet*; Vej *hupel* ~ *hupet*; 'Wk *-húpet* / *hupét*, *hupél-is* (Nercesian 2014: 278; Braunstein 2009: 41; Viñas Urquiza 1974: 58; Gutiérrez & Osornio 2015: 57; Claesson 2016: 59, 158)

[1] In Nivačle, the Chishamnee Lhavos has innovated with regard to the vowel in the plural suffix, whereas the Shichaam Lhavos has lowered the root vowel.

[2] The Iyo'awujwa' and Manjui reflexes contain a fossilized suffix (*-ik*); at least Manjui shows an irregular reflex of PCh **e* (one would expect **-pél*).

Fabre (2014: 306) notes the similarity with the Enlhet–Enenlhet term for 'shadow' – Enlhet, Enenlhet-Toba, Sanapaná *peskeska*; Guaná (*m*)*peskeska* (Unruh & Kalisch 1997: 555; Unruh et al. 2003: 335; Gomes 2012: 130; Kalisch 2023: 110) – but this could be accidental.

Najlis 1984: 10, 25, 28, 36, 53 (**phel*); Viegas Barros 2002: 144 (**χupel*); Fabre 2014: 306; Gutiérrez 2015b: 253

***X₂₃wé'lah, *X₂₃wé'la-ts 'moon' [1]**

Ni *xibe'kla* (*-s*) (Seelwische 2016: 148) • PCh **wé'lah*, **wé'la-s* > Ijw *wé'la* (*-s*); I'w *wé'la* (*-s*); Mj *wé'la* (*-s*) (Drayson 2009: 157; Gerzenstein 1983: 169; Carol 2018) • PW **xwé'lah*, **xwé'la-s* > LB *we'la* (*-lis*) [2]; Vej *iwela* ~ *wela* (*-s*); 'Wk *ʔiwé'lah*, *ʔiwé'la-lis* [2] (Nercesian 2014: 48, 334; Viñas Urquiza 1974: 61; Gutiérrez & Osornio 2015: 44; Claesson 2016: 41)

[1] Maká *xuwel* (*-its*) 'moon' (Gerzenstein 1999: 395; UNICEF & Tekombo'e ha Tembikuaa Motenondeha 2022: 3, 9) is suspiciously similar to the reflexes of PM **X₂₃wé'lah* but the sound correspondences do not follow any regular pattern. It could be an early borrowing from pre-Nivačle **xwé'la*.

[2] The LB and 'Wk plural allomorph does not match the Nivačle and Chorote data and is thus considered non-etymological.

Najlis 1984: 35 (**iwela*); Viegas Barros 2002: 142 (**xuwelʔa*); Gutiérrez 2015b: 253

***ʔaφqó(t)s 'to crawl' [1]**

Ni [*t*]'*aφkos* (Seelwische 2016: 283) • PCh **[t]'amqós* > Ijw [*t*]'*ahkóxs-ʔη*; Mj [*t*]'*alkós* [2] (Drayson 2009: 153; Carol 2018) • PW **[t]qhós* [3] > LB [*ta*]*q^hus*; 'Wk [*t(a)*]*q^hós* (Nercesian 2014: 48; Claesson 2016: 378)

[1] This verb is semantically and formally similar to PM **-ʔaqhu'ts* ~ **-ʔaqhú'ts* 'knee', and we believe they may be ultimately etymologically related, but the relation had become opaque by

the Proto-Mataguayan stage. The verb **ʔaφqó(t)s* might involve an allomorph of the locative verb PM **-áʔw-* plus the root for ‘knee’. A parallel is seen in Chorote, where the verb for ‘to sit (down)’ consists of the locative verb plus the locative suffix PCh **-heʔn(eʔ)* ‘downwards’.

[2] Mj *lk* is not known to be the regular reflex of PCh **mq*.

[3] PW **qh* is not known to be the regular reflex of PM **φq*.

****ʔaφu ~ *ʔaφú* ‘woman’**

Mk *efu (-ts)* (Gerzenstein 1999: 141) • PCh **ʔahwúʔ* > Iʔw *ʔah(w)úʔ ~ ʔahó- ~ ʔohó-, ʔahó-wet*; Mj *ʔahwúʔ ~ ʔahwóʔ, ʔahó-wet* (Gerzenstein 1983: 125, 209; Carol 2018)

Viegas Barros (2013a: 314) notes the similarity with Pilagá *awó* ‘woman’.

Viegas Barros 2013a: 314 (**ah^wu*)

****-ʔá(j)kʻi(h) ~ *-ʔá(j)kʻiʔ, *-ʔá(j)kʻi-l [1]* ‘saliva’**

Ni *-ʔatʔʻi (-k)* (Seelwische 2016: 37) • PCh **-ájkʻi<l><is> [2]* > Ijw *-átsʻilis [2]*; Iʔw *-átsʻilis (-is) [3]*; Mj *-áʔalis* (Drayson 2009: 129; Gerzenstein 1983: 123; Carol 2018) • PW **-ʔ-ákʻi<l^h>* > LB *-ʔ-atʔʻiʔ*; ʔWk *-ʔ-ákʻiʔ* (Braunstein 2009: 73; Claesson 2016: 72)

[1] Nivačle and Wichí point to **-ʔákʻi(h) ~ *-ʔákʻiʔ*, and Chorote to **-ʔájkʻi(h) ~ *-ʔájkʻiʔ*.

[2] In Chorote and Wichí, the plural form of PM has been reanalyzed as a singular one, with the erstwhile plural suffix being reinterpreted as a part of the root. In Chorote, the process occurred even twice, with the innovative plural suffix **-is* being fossilized to the root.

[3] The plain (non-ejective) *ts* in Gerzenstein’s (1983) attestations of the Iyoʔawujwaʔ reflex must be a mistranscription.

****[t]ʻáʔ* ‘to ask’**

Ni *[t]ʻaʔ* (Seelwische 2016: 282) • PCh **[t]ʻáʔ [1]* > Ijw *[t]ʻaʔ-APPL*; Iʔw *-áhl-am*; Mj *[t]ʻaʔ* (Carol 2014a: 80; Drayson 2009: 154; Gerzenstein 1983: 123; Carol 2018) • PW **[t]ʻáʔ* > LB *[t]ʻaʔ-a*; Vej *[t]ʻáʔ*; ʔWk *[t]ʻáʔ* (Nercesian 2014: 239; Viñas Urquiza 1974: 77; Claesson 2016: 431)

[1] PCh **á* (as opposed to **a*) is reconstructed based on the behavior of its reflex in Iyojwaʔajaʔ: in forms such as *hit^l-ʔáhl-e* ‘you ask’ (Drayson 2009: 154) it fails to undergo raising to [e], as is typical of PCh **a*. PCh **á* is not the regular reflex of PM **a*.

****ʔáʔu(ʔ) (*-ts)* ‘iguana’; **ʔáʔu-taχ, *ʔáʔu-ta-ts* ‘alligator’**

Ni *ʔáʔu (-s)*; *ʔáʔu-taχ, ʔáʔu-ta-s* (Seelwische 2016: 43) • PCh **ʔáhl^uʔ (*-s)*; **ʔáhl^u-tah, *ʔáhl^u-ta-s* > Ijw *ʔáhl^uʔ (-s)*; *ʔáhl^u-tʻe (-hes) [1]*; Iʔw *ʔáhl^uʔ (-s)*; *ʔáhl^u-tah (-as) [1]*; Mj *ʔáhl^uʔ (-s)*; *ʔáhl^u-ta ~ ʔáhl^u-tʻ(e) (-s)* (Carol 2014a: 100, fn. 35; Drayson 2009: 93; Gerzenstein 1983: 123–124; Carol 2018) • PW **ʔáʔu*; **ʔáʔu-taχ, *ʔáʔu-t-as* > LB *ʔáʔe; ʔáʔe-taχ*; Vej *aʔu (-ʔajs)*; *aʔu-tah, aʔu-tas [2]*; ʔWk *ʔáʔuʔ (-lis)*; *ʔáʔu-taχ, ʔáʔu-t-as* (Nercesian 2014: 197; Viñas Urquiza 1974:

50; Gutiérrez & Osornio 2015: 20; Fernández Garay 2006–2007: 221; Claesson 2016: 11)

[1] The plurals *ʔáhl'u-t'eh-es* (Iyojwa'aja'), *ʔáhlu-tah-as* (Iyo'awujwa') 'alligators' are non-etymological; all other languages and varieties point to PM **ʔálu-ta-ts*, which would yield Iyojwa'aja' **ʔáhlu-t'e-s*, Iyo'awujwa' **ʔáhlu-ta-s*.

[2] Viñas Urquiza (1974: 50) mistranscribes the Vezoz term for 'iguana' as *aʔtu*.

Najlis 1984: 10, 27 (**ahlu*; **ahlutha*); Gutiérrez 2015b: 254

****ʔámʔáh, *ʔámʔá-ts* 'rat'**

Ni *ʔamʔá* (-s) (Seelwische 2016: 43) • PCh **ʔámʔah* ~ **ʔámʔáh*, **ʔámʔa-s* ~ **ʔámʔá-s* > I'w *ʔámaa* (-s); Mj *ʔám(a)ʔa* (-s) (Gerzenstein 1983: 120; Carol 2018) • PW **ʔáma* [1] > LB *ʔama*; Vej *ama* (-*ʔajis*); 'Wk *ʔámaʔ* (Nercesian 2014: 161; Viñas Urquiza 1974: 50; Gutiérrez & Osornio 2015: 20; Claesson 2016: 12)

[1] Wichi must have undergone irregular vowel harmony (**a...á* > **a...a*). Chorote may have also participated in this sound change, but it is not recoverable whether this is the case.

Najlis 1984: 10 (**hmaa*)

****ʔáp'a(°)χ ~ *ʔáφ'a(°)χ* 'jararaca'**

Ni *ʔap'ax* [1], *ʔapx-as* (Gutiérrez 2020: 286–287) • PCh **ʔáp'ah* > Ijw *ʔáp'a-ki* (-*jis*); I'w *ʔá'pah* (-*as*); Mj *ʔáp'a* (-s) (Drayson 2009: 94; Gerzenstein 1983: 121; Carol 2018)

[1] Campbell et al. (2020: 27) attest the variant *ʔaʔp'ax*, where [ʔp'] is likely an allophone of /p'/.

Najlis 1984: 9 (**ap'áq*)

****ʔaqáje'k* 'wild honey' [1]**

Ni *ʔakájetf*, *ʔakájxe-s* / -*ʔβ-ákájetf* (Seelwische 2016: 36) • PW **ʔaqájeq* > LB *ʔaqojeq*; Vej *k'ájek* [2]; 'Wk *ʔaqájek* (Nercesian 2014: 350; Viñas Urquiza 1974: 63; Claesson 2016: 14)

[1] This is obviously a derivative from PM **-aje'k* ~ **-ajé'k* 'honey comb'.

[2] Vezoz *k'ájek* is not a regular reflex of PW **ʔaqájeq*.

****ʔáqátse(°)χ* 'kind of armadillo'**

(?) Mk *enqetsax* <*hi̯tehus*> 'six-banded armadillo' [1] (Braunstein 1987: 51) • Ni *ʔakátse-tax*, *ʔakátse-ta-s* 'six-banded armadillo' (Seelwische 2016: 36) • PCh **ʔáqásah* 'nine-banded armadillo' > Ijw *ʔákasa*; Mj *ʔókasa* [2] (Drayson 2009: 93; Carol 2018)

[1] The Maká reflex shows a number of irregularities, provided it is related at all. The expected reflex would be **aqatsax*.

[2] The Manjui reflex has irregularly rounded the stressed vowel.

***ʔa(C)qáχ, *ʔa(C)qá-ts [1] ‘rich, pleasant, tasty’**

Ni *ʔakâx*, *ʔakâ-s* (Seelwische 2016: 36) • PCh **(ʔaC)qáh-*, **(ʔaC)qá-s-* [1] > Ijw *-(ʔah)káh-eʔ*, *-(ʔah)ká-s-iʔ*; Iʼw *-káh-ej* ~ *-káh-aj*; Mj *-(ʔam)káh(...)* in ‘happy, rich’ (Drayson 2009: 108; Gerzenstein 1983: 138; Carol 2018) • PW **ʔaqáχ*, **ʔaqá-s* ‘pleasant, tasty’ > LB *ʔaqoχ*; ʼWk *ʔaqáx*, *-ʔáqá-s* (Nercesian 2014: 197; Claesson 2016: 13)

[1] Chorote suggests that there was a consonant between PM **a* and **q*, but Iyojwaʼajaʼ and Manjui point to different consonants (the former to PM **φ* or **ʔ* > PCh **ɹ* or **ʔ*, the latter to **m*).

***-ʔaqhuʼts ~ *-ʔaqhúʼts ‘knee’**

Mk *-aqhuʼts* [1] (*-ij*) (Gerzenstein 1999: 127) • Ni *-(ʔa)kxuʼs*, *-(ʔa)kxatsu-j* (Seelwische 2016: 70, 354) • PCh **-ʔaqús* > Ijw *-ʔakós / -kós-ki*; Iʼw *-kós(-hl-étik-iʔ)*; Mj *-(ʔa)kós*, *-ʔakóʔ-is* (Drayson 2009: 123, 154; Gerzenstein 1983: 144, 219; Carol 2018)

[1] The Maká noun is not attested in Unuʼuneiki Patricia (2011), Tekomboʼe ha Tembikuaa Motenondeha (2020), UNICEF & Tekomboʼe ha Tembikuaa Motenondeha (2022), or the New Testament, where only the verb *[wo]nokokʼen* ‘to kneel’ is found (Mark 15:19); the presence of a preglottalized coda in Maká is thus inferred based on the Nivačle cognate. The absence of a stem-initial *ʔ* in Maká could be a mistranscription.

Najlis 1984: 24 (**tʼaqawsq*); Campbell & Grondona 2007: 15

***-ʔaqaʼt ~ *-ʔaqáʼt ‘chin’**

Ni *-(ʔa)kaʼt*, *-(ʔa)kat-is* ‘chin, barbel’ (Campbell et al. 2020: 152) • PCh **-ʔakát* > Ijw *-ʔakát* (Drayson 2009: 154)

Obviously related to Proto-Guaicuruan **-aqʼád* ‘chin’ (Viegas Barros 2013b, #101).

***ʔatuʼχ ~ *ʔatúʼχ ‘snake sp.’**

Ni *ʔatuʼx*, *ʔatux-is* ‘Argentine boa’ (Seelwische 2016: 50) • PCh **ʔatúh* > Ijw *ʔatóh* ‘a kind of snake (yellow, large, aggressive when it eats)’ (Drayson 2009: 95)

***ʔáwu(C)tsex [1] ‘Chacoan peccary; collared peccary’**

Ni *ʔáʔuktsex*, *ʔáʔuktse-s* ~ *ʔáʔoktsex*, *ʔáʔoktse-s* [2] ‘Chacoan peccary’ (Seelwische 2016: 51; Campbell et al. 2020: 23) • PCh **ʔáwusah* > Ijw *ʔáʔvxse*, *ʔáʔvxseh-es* ‘collared peccary’; Mj *ʔáʔwaxsa* ‘Chacoan peccary’ (Drayson 2009: 95; Carol 2018) • PW **ʔáwutsax* > LB *ʔawetsax* ‘collared peccary’; Vej *awut-sah*, ʼWk *ʔáwutsax*, *ʔáwuts^h-as* (Braunstein 2009: 38; Viñas Urquiza 1974: 51; Gutiérrez & Osornio 2015: 20; Claesson 2016: 19)

[1] Nivačle points to PM **ʔáwoltsex* or **ʔáwoktsex*, whereas Chorote and Wichí point to **ʔáwutsex*.

[2] The form *ʔaβoktsex*, *ʔaβoktse-s* with the unexpected vowel *o* is attested in Seelwische (2016: 51), whereas Campbell et al. (2020: 23) give *ʔaβuktsex*, *ʔaβuktse-s*.

***ʔáxaʔ ‘stork’**

Mk *exeʔ* (-l) ‘maguari stork’ (Gerzenstein 1999: 167; UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 5) • PCh **ʔáhaʔ* > Ijw *ʔáhaʔ* ‘jabiru’ (Drayson 2009: 93)

Viegas Barros 2002: 142 (**axaʔ*)

***ʔaX₁₃ájje(ʔ)χ (fruit); *ʔaX₁₃áj-uʔk, *ʔaX₁₃áj-ku-j^h (tree) ‘mistol (*Ziziphus mistol*)’**

Ni *ʔaxâjex*; *ʔaxâj-uk*, *ʔaxâj-ku-j* (Seelwische 2016: 41–42) • PCh **ʔahájah*; **ʔaháj-uk*, **ʔaháj-ku-j^h* > Iʔw —; *aháj-ik*, *aháj-si-ʔ*; Mj *ʔaháje* (-l); *ʔaháj-uk* (Gerzenstein 1983: 123; Carol 2018) • PW **ʔahájax*; **ʔaháj-uk^w* > LB *(ʔa)hojax*; *(ʔa)hojek^w* [1]; Vej *ahâjak*; *ahâj-uk* [2]; ʔWk *ʔahájax*; *ʔaháj-uk* (Spagarino 2008: 60; Nercesian 2014: 192, 340; Gutiérrez & Osornio 2015: 16; Claesson 2016: 9)

[1] In Lower Bermejeño, there appears to be a variant with an irregular loss of the initial vowel. Nercesian (2014) gives the forms *ʔahojax*, *hojek^w*. Spagarino (2008), by contrast, documents the *hojax*, *ʔahojek^w*.

[2] The final *-k* in the name of the fruit in Vejoz is irregular. Viñas Urquiza (1974: 50) mistranscribes the name of the tree as *aha-juk*.

Campbell & Grondona 2007: 19

***-ʔáX₂₃te(ʔ) (*-j^h) ‘female breast’**

Ni *-ʔaxte* (-j) (Seelwische 2016: 42) • PCh **-ʔáhateʔ* (*-j^h) > Ijw *-ʔáhate* [1]; Mj *-ʔáateʔ* (-j) (Drayson 2009: 153; Carol 2018) • PW **-tʔ-áte* (*-j^h) > LB *-tʔ-ate*; Vej *-tʔ-ate*; ʔWk *-tʔ-áteʔ* (-ç) (Nercesian 2014: 164; Braunstein 2009: 59; Viñas Urquiza 1974: 78; Claesson 2016: 96)

[1] The absence of a word-final glottal stop in Drayson’s (2009) attestation of this noun must be a mistranscription.

***ʔáʔjtex, *ʔáʔjte-ts ‘to hurt’**

Mk *aʔtax*, *aʔti-ts* [1] (Gerzenstein 1999: 130) • Ni *ʔáʔbteχ*, *ʔáʔbte-s* ~ *ʔáʔjtex* [2] (Gutiérrez 2015b: 27; Seelwische 2016: 45; Campbell et al. 2020: 102, 166) • PCh **ʔáʔjah-APPL*, **-ʔáʔjte-s-APPL* > Ijw *ʔáʔtʔeh-eʔ* ~ *ʔáʔtʔih-iʔ*, *-ʔáʔti-s-iʔ* [3]; Iʔw *átih-iʔ*; Mj *ʔátih-APPL* [4] (Carol 2014a: 90; Drayson 2009: 96; Gerzenstein 1983: 122; Carol 2018) • PW **ʔáʔtax*, **ʔáʔjte-s* > LB *ʔojtax*; Vej *ʔáʔjah* [5]; ʔWk *ʔáʔtax*, *ʔáʔjte-s* (Nercesian 2014: 403; Gutiérrez & Osornio 2015: 32; Claesson 2016: 8)

10 Dictionary

- [1] Gerzenstein (1999: 130) documents this as *a(?)taχ*, *ati-ts*. In the New Testament, only *a?taχ*, *a?ti-ts* is attested (1 Corinthians 13:7; Romans 3:16).
- [2] The Nivačle variant with *j* is attested in Seelwische (2016: 45) only. Note that the rhyme *âβ* is phonetically realized as [aɔβ] (Gutiérrez 2015b: 27) or [aʔaw] (Campbell et al. 2020).
- [3] Drayson (2009: 96) mistranscribed the plural form of Iyojwa'aja' as *-ʔáʔti-s-i*.
- [4] The loss of **ʔj* in Manjui is irregular.
- [5] Viñas Urquiza (1974: 51) mistranscribes the Vejoz reflex *ajtah*.
Hunt 1915: 240

***ʔ[n]áʔl, CAUS *ʔ[n]ál-it ~ [ji]ʔn-ál-it 'to be visible'**

Mk *[n]aʔl* / *-aʔl* 'to be present, to exist' [1], *[n]aʔl(-APPL)-kij* 'to be (of light)' [1], *[n]aʔl-ip-xiʔ* 'to be illuminated from above' [1], CAUS *[n]-al-it-ikʔi* 'to illuminate' (Gerzenstein 1999: 117) • Ni *[n]áʔk* / *-ʔáʔk*, CAUS *[ji]n-ákl-it*, *[ta]n-áʔk-tanit*; ChL *[n]áʔk* / *-áʔk* [2], CAUS *n-ákl-it* / *-ʔn-ákl-it* [2] (Seelwische 2016: 199, 200; Campbell et al. 2020: 79) • PCh **ʔ<n>ál* > Mj *ʔnál* 'to be visible, to appear nitidly' (Drayson 2009: 162; Carol 2018) • PW **ʔ<n>áʔl* / **ʔ<n>ál-APPL* / **ʔ<n>án-APPL* [3], CAUS **[hi]ʔ<n>ál-it* / **[hi]ʔ<n>ál-t-* > LB *ʔnol<eχ>* ~ *ʔno<χ>* 'apparently' [4]; Vejoz or Guisnay *ʔnál* / *ʔnál-APPL* / *ʔnâŋ-APPL* / *ʔnân-APPL*, CAUS *-ʔnál-it* / *-ʔnál-t-*; ʔWk *ʔnáʔl* ~ *ʔnáʔ* / *ʔnál-APPL* / *ʔnâŋ-APPL*, CAUS *[hi]ʔnál-it* / *[hi]ʔnál-t-* (Nercesian 2014: 334–335; Lunt 2016: 69; Claesson 2016: 50–52)

- [1] The preglottalized coda in Maká is attested in the New Testament (e.g. Juan 8:58; Mark 8:18; Revelations 16:18). The loss of the stem-initial glottal stop is irregular, except in third-person forms with the prefix *n-*, where it is expected. It is possible that the stem was remodeled based on the third-person forms.
- [2] The forms attested in Campbell et al. (2020) (presumably representative of the Chishamnee Lhavos dialect) show an irregular loss of the stem-initial glottal stop in the underived verb (as seen in *ts-áʔk* 'I appear'); the expected reflex is documented in Seelwische (2016). Conversely, when the root is preceded by the prefix *-n-*, the underlying glottal stop shows up in Chishamnee Lhavos, but not in Seelwische's (2016) data.
- [3] The allomorph **ʔnân-* in Wichí expectedly appears before **h*-initial suffixes.
- [4] The Lower Bermejeño particle *ʔnoleχ* ~ *ʔnoχ*, with an optional irregular loss of two segments, goes back to PW **ʔnâl-eχ* 'to look like, to appear as'.

***-ʔáʔl, 3 *ʔ[j]i(ʔ)l [1] 'to die'**

Mk (Lengua doculect) <al>, <il> (Peña 1898: 496) • PCh **ʔ[j]áʔl* > Ijw *ʔ[j]áʔl*; Iʔw *[j]él* / *-ál* / *-áhl-* (Carol 2014a: 78, 79, fn. 8; Drayson 2009: 165; Gerzenstein 1983: 78, 119, 208) • PW **ʔ[j]il^h* > LB *ʔ[j]iʔ*; Vej *[j]iʔ* [2]; ʔWk *ʔ[j]iʔ* (Nercesian 2014: 292; Fernández Garay 2006–2007: 218, 219; Claesson 2016: 124)11

[1] This verb evidently presented the same alternation as PM **-âp*, 3 **[j]ip* ‘to cry’. Chorote and Wichí generalized the allomorphs with **â* and **i*, respectively. The reconstruction of the presence or absence of glottalization in the final consonant is uncertain because diagnostic cognates in modern Maká, Manjui, and Nivaçle are lacking.

[2] The absence of a glottal stop or glottalization in the root-initial position in Vejoz could result from mistranscription. Viñas Urquiza (1974: 84) documents the verb as *[j]ijl*.

***ʔáʔlá ‘South American rattlesnake; caninana’; *ʔáʔlá-tax ‘Argentine boa’**

Ni *ʔáʔklâ* (-s) ‘South American rattlesnake; caninana’; *ʔáʔklâ-tax*, *ʔáʔklâ-ta-s* ‘jararaca or similar snake (*Bothrops alternatus*; *Xenodon merremii*; *Bothrops neuwedi meridionalis*; *Lystrophis dorbignyi*)’ (Seelwische 2016: 210) • PCh **ʔáʔlá<ta>* ~ **ʔáʔlá<ta>*, **ʔáʔlá<ta>-s* ~ **ʔáʔlá<ta>-s* > Ijw *ʔaʔlátah* (-as) [1]; Iʼw *alátah*, *aláta-s*; Mj *ʔaʔláta* (-s) (Drayson 2009: 95; Gerzenstein 1983: 119; Carol 2018) • (?) PW **lá<ta>*χ [2] > LB *lataχ* (Nercesian 2014: 368)

[1] The Iyojwaʼajaʼ plural form is non-etymological.

[2] Lower Bermejeño *lataχ* is not the expected reflex of PM **ʔáʔlá-taχ*; one would rather expect **ʔoʔlotaχ*. It is possible that the Wichí term does not belong to this etymology altogether.

***ʔál(V)tse(ʼ)χ, *ʔál(V)tse-ts [1] ‘cháguar (*Bromelia urbaniana* = *Deinacanthon urbanianum*)’**

Ni *ʔáktsex*, *ʔáktse-s* ‘*Dyckia chaguar*’ (Seelwische 2016: 209) • PCh **ʔálVsah*, **ʔálVse-s* [2] > Ijw *ʔálisha* / -ʔw-álisha; Iʼw *álisha*, *álishi-s*; Mj *ʔálisha* / -w-álisha (Carol 2014a: 99; Drayson 2009: 94, 127; Gerzenstein 1983: 120; Carol 2018) • PW **ʔáletsaχ* > LB *ʔoletsaχ* (Spagarino 2008: 59; Nercesian 2014: 48; Suárez 2014: 225)

[1] The Nivaçle form points to PM **ʔáltsex*, the Chorote one to PM **ʔálVtsex*, and the Wichí one to PM **ʔáletsex*.

[2] PCh **V* can stand for any vowel that fails to cause both the first and the second palatalization in Chorote (such as **a* or **â*).

***ʔánhajex (bean); *ʔánhaj-uʔk (plant); *ʔánhaje-ʔp (season) ‘Capparis retusa’**

Mk *anhejaχ*; *anhej-uʔk*; *anheji-ʔp* (Braunstein 1987: 77; Gerzenstein 1999: 121; Tekomboʼe ha Tembikuaa Motenondeha 2020: 23–25, 2022: 7) • Ni *ʔánxajex*; *ʔánxaj-uk*; *ʔánxaje-p* (Seelwische 2016: 212) • PCh **ʔóhnajah*; **ʔóhnaj-uk*, **ʔóhnaj-ku-jʰ* [1] > Ijw *ʔóhnajeʔ* [2]; Mj *ʔóhnaje* ~ *ʔóhnaji* ~ *ʔóhneje* [3]; *ʔóhnaj-ik*, *ʔóhnaj-fi-j* (Drayson 2009: 142; Carol 2018) • PW **ʔánhajaχ*; **ʔánhj-uk^w* [4] > LB *ʔonjaχ*, *ʔonj-ek^w* [5]; Vej *ánjax*; *ánj-uk*; ʼWk *ʔánjax* (Spagarino 2008: 60; Nercesian 2014: 324, 403; Gutiérrez & Osornio 2015: 17; Claesson 2016: 7)

[1] We surmise that the vowel of the first syllable is irregularly reflected in Chorote as PCh **o* due to the contamination with PCh **ʔóhnaʔ* ‘*Capparis salicifolia* fruit’.

[2] The word-final *-ʔ* in the Iyojwa’aja’ form is irregular.

[3] The Manjui variant *ʔóhneje* is irregular.

[4] The loss of PM **a* in the Wichí form is irregular.

[5] The voiced nasal *n* in the Lower Bermejeño Wichí form is irregular.

***ʔánitih** ‘wasp sp.’

Ni *ʔánniti* (-s) ‘red paper wasp swarm’ (Seelwische 2016: 211) • PCh **ʔánitih* > Ijw *ʔániti* (-jis) ‘black wasp’ (Drayson 2009: 94)

Najlis 1984: 16 (**ánthi*)

***[t]’ás** ‘to step’

Ni *[t]’ás* (Seelwische 2016: 289) • PCh **[t]’ás* > Ijw *[t]’ás*; I’w *[t]’áts-eʔ / -áhts-eʔ* [1]; Mj *[t]’as* (Drayson 2009: 154; Gerzenstein 1983: 124, 215; Carol 2018) • PW **[t]’ás-APPL* > LB *[t]’os-APPL*; Vej *[t]’ás-APPL*; Wk *[t]’ás-APPL* (Nercesian 2014: 239; Viñas Urquiza 1974: 78; Claesson 2016: 429–430)

[1] The Iyo’awujwa’ reflex is attested as *[t]’áts-eʔ / -áhts-eʔ* in Gerzenstein (1983), which is likely a mistranscription for *[t]’á(h)ts-’eʔ / -á(h)ts-’eʔ* (where the initial glottal stop of the applicative *-ʔeʔ* fuses with the underlying /s/ as *(h)ts’*). The underived verb most probably exists in the language but is not documented in the cited work.

***ʔásk’ála(ʔ)χ** ‘widower’; ***ʔásk’ál(a)-keʔ** ‘widow’

Ni *ʔástʔaklax* (-is); *ʔástʔak-tʃe* (-j) (Seelwische 2016: 213) • PCh **ʔásk’élah*; **ʔásk’éla-keʔ* (*-j^h) > Ijw *ʔask’ílʔe*; *ʔask’ílʔe-ki* [1]; I’w *ast’éla* (-s); *ast’éla-kiʔ*; Mj *fiʔéla* (-s); *fiʔéla-kiʔ* (-j) [2] (Drayson 2009: 94; Gerzenstein 1983: 122; Carol 2018)

[1] The absence of a word-final glottal stop in Drayson’s (2009) attestation of this noun must be a mistranscription.

[2] The development of the initial syllable in Manjui is entirely irregular.

Campbell & Grondona 2007: 22

***ʔátits ~ *ʔátíts ~ *ʔátets ~ *ʔátéts** [1] ‘wild pepper’

Mk *atits* [1] (-ket) (Gerzenstein 1999: 132) • PCh **ʔátés* > I’w *ʔatés*; Mj *ʔatés*, *ʔatés ~ ʔaté(h)f-is* (Gerzenstein 1983: 122; Carol 2018)

[1] The reconstructions **ʔáti’ts ~ *ʔáti’ts ~ *ʔáte’ts ~ *ʔáté’ts* are ruled out because the Maká reflex is attested with a plain coda in Braunstein (1987: 80).

***-ʔáx (*-íts)** ‘skin, bark’

Mk *-ʔax* (-its) (Gerzenstein 1999: 135) • Ni *-ʔáx* (-is) (Seelwische 2016: 355) • PCh **-ʔáh*, **-ʔáh-és* > Ijw *-ʔáh*, *-ʔeh-és*; I’w *-áh* (-as) [1]; Mj 3 *t-’áh*, *-(ʔa)h-ékiʔ*

(Carol 2014a: 86, 92; Drayson 2009: 153; Gerzenstein 1983: 123; Carol 2018) • PW **-t-’áχ*, **-t-’áh-és* > LB *-t-’oχ*, *-t-’oh-es*; Vej 3 *t-’áh*; ’Wk *-t-’áx*, *-t-’áh-és* (Nercesian 2014: 191; Viñas Urquiza 1974: 78; Claesson 2016: 7, 95)

[1] The plural form attested in Iyo’awujwa’ is non-etymological.

Likely related to Proto-Guaicuruan **-ʔáko* ‘leather, skin’ (Viegas Barros 2013b, #650; cf. Viegas Barros 2013a: 309).

Najlis 1984: 10, 19 (**t-’áhn*, 1 **j-t-’áhn*, 2 **a-t-’áhn*); Viegas Barros 2002: 143 (**-ʔax*); Viegas Barros 2013a: 309 (**-Ah*)

***’[n]’áktsi? [1] ‘to feel disgust’**

Ni *[n]’áxtsi* / *-ʔáxtsi* (Seelwische 2016: 211) • PCh **’[n]’ájtsi? [2]* > Ijw *’[n]’átfi?* ~ *’<n>átfi?* [3]; I’w *-’ájsij-e*; Mj *’[n]’ájfi(j)?* (Carol 2014b; Drayson 2009: 162; Gerzenstein 1983: 118; Carol 2018) • PW **’<n>’áx^wts<ej>-eh* > Vejoz or Guisnay *’náh^wtsej-e*; ’Wk *’náx^wtsej-eh* (Lunt 2016: 69; Claesson 2016: 49)

[1] Nivaçle points to PM **xts* or **χts*, Chorote to **jts*, and Wichí to **φts*.

[2] The cluster PCh **ts* is reconstructed based on the Iyojwa’aja’ reflex with an affricate. Note that Chorote has no affricate /ts/, suggesting that we are dealing here with a cluster composed of /t/ and /s/.

[3] Drayson (2009: 162) mistranscribes this as *’<n>átfi*.

***[t]’äk [1] ‘to eat (intr.)’**

Mk *[t]’ek* [1] (Gerzenstein 1999: 142, 267) • PW **[t]’eq* > LB *[t]’eq*; Vej/’Wk *[t]’ek* (Nercesian 2014: 237, 239; Braunstein 2009: 56; Viñas Urquiza 1974: 78; Fernández Garay 2006–2007: 213; Claesson 2016: 438)

[1] The reconstruction **[t]’á’k* is ruled out because the Maká reflex, as attested in the New Testament (e.g. Luke 18:12), shows a coda with no glottalization.

Viegas Barros (2013a: 305) compares this verb to Proto-Guaicuruan **-ekéʔe*, but the updated reconstruction **-kége* ‘to eat’ (Viegas Barros 2013b, #326) appears to be incompatible with the Mataguayan datum.

Viegas Barros 2013a: 305 (**-ek* ‘to eat’)

***[t]’äskäj ‘to laugh’**

Ni *[t]’astfaj* / *-ʔistfaj* ‘to smile’, *[t]’astfaj=ʔin* / *-ʔistfaj=ʔin* ‘to laugh’ (Campbell et al. 2020: 242, 317) • PCh **[t]’iskéj?* > Ijw *[t]’iskí?* / *-skí?*; I’w *-skíj=(?)in*; Mj *[t]’iskí?* / *-skíj?* ‘to laugh, to smile (of a baby)’; *[t]’iskí-hi’ne?* ‘to laugh’ (Drayson 2009: 155; Gerzenstein 1983: 161; Carol 2018) • PW **[t]’isk’ej* > LB *[t]’istfej*; Vej *-stfej-ti*; ’Wk *[t]’isk’ej?* (Nercesian 2014: 149; Viñas Urquiza 1974: 72; Claesson 2016: 445)

[1] This etymology has been first identified by Campbell (submitted).

Campbell submitted (**-iskey*)

***-ʔäsχaʔn, *-ʔäsχán-its ‘meat’**

Mk *-ʔeseʔn* [1] (*-its*) (Gerzenstein 1999: 158, 257) • Ni *-(ʔa)sxaʔn, -(ʔa)sxan-is* (Seelwische 2016: 234, 354) • PCh **-ʔisáʔn, *-ʔisán-is* > Ijw *-(ʔi)sʔéʔn; Iʔw -sʔén; Mj -(ʔi)ʔéʔn, -ʔifén-is* (Drayson 2009: 155; Gerzenstein 1983: 159; Carol 2018) • PW **-t-ʔisaʔn, *-t-ʔisán-is* > LB/Vej *-t-ʔisan; ʔWk -t-ʔisaʔn, -t-ʔisán-is* (Nercesian 2014: 291; Viñas Urquiza 1974: 78; Claesson 2016: 97)

[1] The preglottalized coda in the singular form in Maká is attested in the New Testament (e.g. Colossians 2:19; Mark 10:8).

Najlis 1984: 28, 41 (**tshan*)

***ʔéjaʔ (*-l) ‘mosquito’**

Mk *ijeʔ(-l)*, (Towothli doculect) <eya> (Gerzenstein 1999: 225; Hunt 1915: 251) • Ni *jijaʔ* [1] (Seelwische 2016: 385) • PCh **ʔéjaʔ (*-l)* > Ijw *ʔéjeʔ (-waʔ)* [2]; Iʔw *ʔéjeʔ; Mj ʔéjeʔ (-l)* (Drayson 2009: 96; Gerzenstein 1983: 125; Carol 2018)

[1] The Nivaçle reflex is entirely irregular: one would expect **ʔéja*.

[2] The plural form attested in Iyojwaʔajaʔ is non-etymological.

***ʔ[j]éjxâts-han ‘to teach’ [1]**

Mk *[j]ixats<hen>* [2] (Gerzenstein 1999: 219–220) • Ni *[j]ejxats-xan / -ʔejxats-xan* [3] (Seelwische 2016: 123) • PCh **ʔ[j]éjâhâs<an>* [4] > Ijw *ʔ[j]ijasaʔn / -ʔéjasaʔn* [5]; Iʔw *-éjesan* [5]; Mj *ʔ[j]ijésân / -ʔéjésân* (Drayson 2009: 166; Gerzenstein 1983: 125; Carol 2018)

[1] The PM verb is obviously derived from the etymon of Ni *-k-ʔeʔjxat* ‘news’ (Seelwische 2016: 123, 227).

[2] The expected reflex in Maká would be **[j]ijxats<hen> / *-ʔijxats<hen>*.

[3] The expected reflex in Nivaçle would be **[j]éjxâts-xan / *-ʔejxâts-xan*. The irregular change **â > a* must have counterfered the palatalization of velars.

[4] In Chorote, **â* was unexpectedly epenthesized between **j* and **h*.

[5] PCh **âhâ* was simplified to a single vowel in all dialects except Manjui (Ijw *a*, Iʔw *e*).

Possibly related to Proto-Guaicuruan **-iʔatsʔén* ‘to know, to understand’ (Viegas Barros 2013b, #306; cf. Viegas Barros 2013a: 305).

Viegas Barros 2013a: 305 (**-ejhats-han* ‘to know’)

***-ʔelâ(ʔ)k ~ *-ʔelâ(ʔ)k / *-ʔelkâ ~ *-ʔelká- [1] ‘pus’**

Mk *-(i)lka (-l)* (Gerzenstein 1999: 199) • Ni *-(ʔe)kkâ<ʔ> (-s)* (Seelwische 2016: 355) • PCh **-ʔelâk* > Ijw *-ʔilʔák / -lák (-is)* (Drayson 2009: 155)

[1] Maká and Nivaçle would appear to have generalized the vocalic stem, and Chorote the consonantal one.

***ʔéle(ʔ) ‘parrot’**

Ni *ʔekle (-s)* (Seelwische 2016: 122) • PCh **ʔéleʔ (*-waʔ)* > Ijw *ʔéleʔ, ʔél-iwaʔ; Iʔw ʔéleʔ, ʔále-waʔ* [1]; Mj *ʔéleʔ (-waʔ)* (Drayson 2009: 96; Gerzenstein 1983:

126; Carol 2018) • PW **ʔéle* > LB *ʔele*; Vej *ele*; ^ʔWk *ʔéleʔ(-lis)* (Nercesian 2014: 152; Viñas Urquiza 1974: 56; Claesson 2016: 20)

Rejected: Maká *eheʔ(-l)* ‘parrot’ (Gerzenstein 1999: 142; UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 5) cannot be related to PM **ʔele* for phonological reasons.

Compare Proto-Qom **elé* (> Mocoví *elé*, Pilagá *ele*, Toba–Qom *ele*) ‘parrot’, which does not reconstruct to Proto-Guaicuruan and is thus a probable loan from a Mataguayan language, as well as Lule *ele* ‘parrot’, which is also obviously related (Viegas Barros 2013a: 300).

Najlis 1984: 16, 35 (**éle*); Gutiérrez 2015b: 253

**-ʔeʔ ~ *-ʔéʔ* ‘other’

Ni *-ʔeʔ* (Seelwische 2016: 490) • PW **-ʔeʔ ~ *-ʔéʔ* > LB *-ʔeʔ*; Vej *-eʔ*; ^ʔWk *-ʔeʔ ~ -ʔéʔ* (Nercesian 2014: 42; Viñas Urquiza 1974: 56; Claesson 2016: 20)

Viegas Barros (2013a: 314) compares the Wichí form with Kadiwéu *e:le* ‘other’.

Najlis 1984: 40 (**ahl*)

**-ʔi (*-l)* ‘liquid, juice’

Mk 3 *t-ʔiʔ(-l)* ‘juice’ (Gerzenstein 1999: 258) • Ni *-ʔiʔ(-k)* ‘liquid, juice, broth, sap’ (Seelwische 2016: 139, 287) • PCh **-ʔiʔ(*-l)* > Ijw *-ʔéʔ(-ʔl)*; Iʔw 3 *t-ʔé*, *t-é-j* [1]; Mj 3 *t-ʔéiʔ* (Drayson 2009: 155; Gerzenstein 1983: 163; Carol 2018) • PW **-t-ʔi(*-l^h)* > LB/Vej *-t-ʔi*; ^ʔWk *-tʔiʔ(-ʔ)* (Nercesian 2014: 197, 212; Viñas Urquiza 1974: 107; Claesson 2016: 97)

[1] The plain *t* in Gerzenstein’s (1983) attestation of the Iyo’awujwa’ plural form must be a mistranscription.

Possibly related to Proto-Guaicuruan **-ʔegi* ‘juice’ (Viegas Barros 2013b, #669).

Najlis 1984: 16, 48 (**tʔe ~ *tʔe*)

**ʔjim* ‘to dry out, to be low (of water)’

Mk *[jim]* ‘to go low (of rivers)’ (Gerzenstein 1999: 186) • Ni *[jim]* (Seelwische 2016: 382) • PCh **ʔjim-APPL / -ʔim-APPL* > Ijw *ʔjim-APPL / -ʔém-APPL*; Mj *ʔjim-APPL / -ʔéim-APPL* (Drayson 2009: 165, 166; Carol 2018) • PW **ʔjim* > Vej *[jim]*; ^ʔWk *ʔjim* (Viñas Urquiza 1974: 84; Claesson 2016: 125)

Viegas Barros (2013a: 308) notes the similarity with Proto-Qom **ʔim* ‘to be dry’.

Viegas Barros 2013a: 308 (**-(j)im*)

**ʔis (*-íts)* [1] ‘good’

Ni *ʔis*, *-ʔis-is* (Seelwische 2016: 140) • PCh **ʔis* > Ijw *ʔés*, *ʔixf-ís*; Iʔw *ʔés*; Mj *ʔéis*, *ʔas-éis* (Carol 2014a: 84; Drayson 2009: 112, 161; Gerzenstein 1983: 127; Carol 2018) • PW **ʔis (*-ís)* > LB *ʔis*; Vej *is*; ^ʔWk *ʔis (-ís)* (Nercesian 2014: 312; Viñas Urquiza 1974: 60; Gutiérrez & Osornio 2015: 34; Claesson 2016: 34)

[1] In absence of a known cognate in Maká, one could wonder whether this stem could be reconstructed as **ʔits*, with a regular **ts > s* in coda. This seems unlikely, given that the

daughter languages maintain the fricative *s* even before vowel-initial suffixes, as in the Lower Bermejeño inchoative derivative *ʔis-eχ* ‘to become good’ (Nercesian 2014: 262). This contrasts with the behavior of the roots which reflect *bona fide* PM **ts*-final roots: compare LB *qates*, *qatets-eł* ‘star’ (Nercesian 2014: 112).

***ʔitâ(ʔ)χ, *ʔitâ-ts ‘fire’**

Ni *ʔitâχ*, *ʔitâ-s* / *-β-itâχ*, *-β-itâ-s* (Seelwische 2016: 141, 362) • PCh **ʔitâh*, **ʔitâ-s* > Iʿw *ʔéjtʔeł* ~ *ʔéjtił* (-s) [1]; Mj *ʔéit(ʔ)e* (-s) (Gerzenstein 1983: 126, 199; Carol 2018) • PW **ʔitâχ*, **ʔitâ-s* > LB *ʔitoχ*; Vej *itâh*, *itâ-s* ‘fire, match’; ʾWk *ʔitâχ*, *ʔitâ-s* (Nercesian 2014: 295; Viñas Urquiza 1974: 61; Gutiérrez & Osornio 2015: 48; Fernández Garay 2006–2007: 213; Claesson 2016: 38)

[1] Gerzenstein’s (1983) attestation of a word-final glottal stop in the Iyo’awujwa’ reflex must be a mistranscription.

Najlis 1984: 16, 19 (*ithâ*); Viegas Barros 2002: 144 (**itâχ*)

***[n]ixowáj / *-ʔixowáj ‘to be afraid’**

Mk *[n]ixiwej* / *-ʔixiwej* [1] (Gerzenstein 1999: 221) • Ni *[n(i)]xoβaj* / *-ʔixoβaj* (Campbell et al. 2020: 259) • PW **<n>owáj* [2] > LB *nuwaj*; ʾWk *nowáj*? (Nercesian 2014: 149; Claesson 2016: 278)

[1] Maká shows an irregular change **o > i*.

[2] We assume an irregular loss of the initial syllable in Wichí. It is also possible that **[n]owáj* was the original Proto-Mataguayan root, with Maká and Nivaçle showing an extra prefix.

***-ʔo(ʔ), *-ʔó-l ‘grave’**

Ni 3 *t-ʔo?* (Campbell et al. 2020: 39) • PCh **-ʔó?* (**-l*) > Ijw *-ʔó?* (*-ʔl*) (Drayson 2009: 156) • PW **-t-ʔo(ʔ)* > LB *-t-ʔu(ʔ)*; ʾWk *-t-ʔo?*, *-t-ʔo-lis* (Braunstein 2009: 60; Claesson 2016: 98)

***ʔóφo? (*-ts) ‘picazuro pigeon (*Patagioenas picazuro*)’**

Mk *ofo?* (*-l*) [1] (Gerzenstein 1999: 281) • Ni *ʔoφo* (*-s*) (Seelwische 2016: 206) • PCh **ʔóhwo?* (**-s*) > Ijw *ʔóhwo?*; Iʿw *ófʷo?* (*-s*) [2]; Mj *ʔóhwo?* (*-s*) (Carol 2014a: 142; Drayson 2009: 142; Gerzenstein 1983: 152; Carol 2018)

[1] The Maká plural form with *-l* does not match the Nivaçle and Chorote data.

[2] Gerzenstein (1983: 213) documents also the phonetic variant *óxu?*.

***[j]om ‘to be extinguished’, CAUS **[j]om-hat* ‘to extinguish’**

Mk *[j]om*, *[j]om-het* (Gerzenstein 1999: 282) • PCh **[j]óm-APPL*, **[j]óhm-at-APPL* > Ijw *ʔ[j]óʹm-e*, *ʔ[j]óhm-at-APPL*; Iʿw —, *-ohm-at-e?* ~ *-owm-at-e?*; Mj —, *ʔ[j]óhm-at-APPL* (Carol 2014a: 78; Drayson 2009: 166; Gerzenstein 1983: 153, 183; Carol 2018) • PW **[j]om*, **[j]om-ét* [1] > LB —, *ʔ[j]um-et*; Vej *[j]om* [2], —; ʾWk *ʔ[j]oŋ*, *ʔ[j]om-ét* (Nercesian 2014: 295; Viñas Urquiza 1974: 84; Claesson 2016: 128)

[1] The Wichí causative **[j]om-ét* is not a reflex of PM **[j]om-hat*, but rather an independent formation.

[2] The absence of a glottal stop or glottalization in the root-initial position in Viñas Urquiza's (1974) attestation of the Vejoz reflex could result from mistranscription.

Viegas Barros (2013a: 307) compares this to Proto-Guaicuruan **-ʔem* 'to be extinguished' (Viegas Barros 2013b, #672).

Hunt 1915: 239; Viegas Barros 2013a: 307 (**-om*, CAUS **-om-hate*)

***[n]om 'to wake up' [1]**

Mk *[n]om-pha'm* [1] (Gerzenstein 1999: 222, 282; Messineo 2015: 138) • PW **' <n>om >* LB *'num*; 'Wk *'nom* (Nercesian 2021; Claesson 2016: 76)

[1] Morphologically, this verb looks like a middle voice derivation from the verb **[j]om* 'to be extinguished'.

[2] The absence of an underlying glottal stop in Maká, as seen in inflected forms such as *ts-om-pha'm* (as opposed to the expected form **ts-'om-pha'm*), must have come about through analogy with the third-person form *[n]om-pha'm*, where glottalization is regularly lost in the word-initial position.

***ʔóna(ʔ)χ 'my brother'**

Ni *ʔonax* 'my younger brother' (Seelwische 2016: 207) • PCh **ʔónah >* Mj *ʔóna (-wat)* 'my elder brother' (Carol 2018)

Rejected: Najlis (1984: 20) considers the Nivačle term related to Ni *-sunxa* 'younger sister' and reflexes of PW **-púhxʷa* 'brother', which are all derived from PM **p'unhwa* 'sibling' in her reconstruction. This is obviously a spurious comparison.

***[j]óp'ale(?) 'to hiccup'**

Ni *[j]op'akle / -ʔóp'akle* 'to choke' (Seelwische 2016: 212) • PCh **[j]óp'ale-ʔn >* Ijw *[j]óp'ale?* [1]; I'w *-óppali-en* [2]; Mj *[j]óp'ele-ʔm / -óp'ele-ʔm* [3] (Drayson 2009: 161; Gerzenstein 1983: 153; Carol 2018) • PW **[j]óp'le* [1] > LB *-ju'le*; Vej *[j]ople*; 'Wk *'[j]ople<j>?* [4] (Nercesian 2014: 53; Hunt 1913a: 67, 113, 177; Claesson 2016: 128)

[1] Drayson (2009: 161) transcribes this as *[j]óp'ali-ʔn*, which does not match our field data.

[2] The geminate *pp* in the Iyo'awujwa' reflex is probably a mistranscription of *pʔ*.

[3] In Manjui, unstressed PCh **a* irregularly yielded *e*.

[4] The 'Weenhayek reflex is likely ill-transcribed, as Claesson (2016: 218) marks the respective entry as an "early note" (apparently meaning that the form was documented when his knowledge of the language was suboptimal). The expected form would be **[j]op'le?*

Viegas Barros (2013a: 306) compares this to Proto-Guaicuruan **-t'ap'ela* 'to choke' (Viegas Barros 2013b, #550).

Viegas Barros 2013a: 306 (**-op'ale*)

***-ʔoʔt ~ *-ʔóʔt ‘chest’**

Ni -ʔoʔt, -ʔot-is (Seelwische 2016: 355) • PCh *ʔóʔt > Ijw -ʔót; Iʔw -ót (-es) [1]; Mj -ʔót (Carol 2014a: 77, 85; Drayson 2009: 156; Gerzenstein 1983: 153; Carol 2018)

[1] The absence of a ʔ in Gerzenstein (1983) must be a mistranscription.

Rejected: Najlis (1984: 38, 42) compares the Chorote reflex to Ni -tiʔβte ‘heart’ and reflexes of PW *-tʔókʷe ‘chest’, but this is absolutely impossible for phonological reasons.

***ʔ[j]uj ‘to enter, to sink, to set (of sun)’**

Mk [j]uj / -ʔwi ‘to enter, to sink’ (Gerzenstein 1999: 374) • Ni [j]uj / -ʔuj (Seelwische 2016: 390) • PCh *ʔ[j]újʔ ‘to enter’ > Ijw ʔ[j]úʔ / -ʔóʔ [1]; Iʔw -oj-i [2]; Mj ʔ[j]újʔ / -ʔójʔ (Carol 2014b; Carol 2014a: 77, fn. 4; Drayson 2009: 166; Gerzenstein 1983: 152; Carol 2018) • PW *ʔ[j]uj ‘to sink, to set (of sun)’ > Vej ʔ[j]uj [3]; ʔWk ʔ[j]ujʔ ‘to set (of sun)’; ʔ[j]új-APPL ‘to enter’; *ʔ[j]ú-kʲe ‘to enter, to wear’, *ʔ<j>ú-kʲe (<*-lis) ‘shirt’ > LB ʔ[j]e-tfe; Vej ʔ[j]u-tfe [3]; ʔjutfe (-lis); ʔWk ʔ[j]ú-kʲeʔ; ʔjúkʲeʔ (-lis) (Nercesian 2014: 152; Viñas Urquiza 1974: 84; Gutiérrez & Osornio 2015: 51, 66; Claesson 2016: 129–131)

[1] Drayson (2009) mistranscribes this as ʔ[j]ú.

[2] The absence of a ʔ in Gerzenstein (1983) must be a mistranscription.

[3] Viñas Urquiza (1974: 84) mistranscribes ʔ[j]- as [j]-.

***ʔúlʔâh, *ʔúlʔâ-ts ‘dove (Columbina sp.)’**

Ni ʔuklʔâ (-s) ‘Picui dove’ (Seelwische 2016: 306) • PCh *ʔúlʔâh, *ʔúlʔâ-s > Iʔw ólaha (-s); Mj ʔúl(a)ʔa (-s) ‘scaled dove’ (Gerzenstein 1983: 152; Carol 2018)

***-ʔuka ‘to swell’**

Ni [t]ʔuka<ʔn> ‘to swell’, -ʔuka<ʔx>, -ʔuka<x>-is ‘swelling’ [1] (Campbell et al. 2020: 247) • PCh *ʔ[t]ʔká<ʔn> ‘to swell’ [1 2] > Ijw [t]ʔikʲéʔn (Drayson 2009: 155) • PW *<t>ʔukʷa ‘to swell’ [3] > LB tʔikʷa [2]; ʔWk tʔukaʔ (Nercesian 2021; Claesson 2016: 449)

[1] Nivačle and Chorote have fossilized a verbalizing suffix; in addition, Nivačle reflects a nominalization of the erstwhile verb.

[2] Chorote and Lower Bermejeño Wichí show unusual reflexes of the root-initial vowel; one would expect to find *u* in Iyojwaʔajaʔ and *e* in Lower Bermejeño Wichí.

[3] Wichí, or at least ʔweenhayek, has fossilized the erstwhile third-person prefix as a part of the root (Claesson 2016: 99).

***-ʔúʔ ‘to urinate’**

Mk uʔ / -ʔuʔ (Gerzenstein 1999: 354) • Ni [j]uʔ / -ʔuʔ (Seelwische 2016: 306) • PCh *ʔ[t]ʔúʔ > Ijw [t]ʔóʔ; Iʔw -ól [1]; Mj [t]ʔúʔ (Drayson 2009: 155; Gerzenstein

1983: 152; Carol 2018) • PW **[t]’úł* > LB *[t]’eł*; Vej *[t]uł* [2]; ’Wk *[t]’úł* (Nercesian 2014: 238; Braunstein 2009: 59; Viñas Urquiza 1974: 77; Claesson 2016: 449)

[1] The absence of an initial glottal stop in Gerzenstein’s (1983) attestation of the word could result from mistranscription.

[2] The plain stop *t* in Viñas Urquiza’s (1974) attestation of the Vejoz reflex must be a mistranscription.

Gutiérrez 2015b: 254–255

**-ʔútu(ʔ)* ‘urine’

Ni *-ʔutu* (Seelwische 2016: 307) • PCh **-ʔúhluʔ* > Ijw *-ʔéhlʷuʔ* [1]; I’w *-óhluʔ(-s)* [2]; Mj <tsojliu> ~ <sojliu> (Drayson 2009: 155; Gerzenstein 1983: 153; Lehmann-Nitsche 1910–1911: 118) • PW **-t’útu* > Vej *-t-utu* [3]; ’Wk *-t’útuʔ* (Viñas Urquiza 1974: 77; Claesson 2016: 99)

[1] Iyojwa’aja’ *e* (underlying /i/) is not a regular reflex of PCh **u*.

[2] The absence of an initial glottal stop in Gerzenstein’s (1983) attestation of the word could result from mistranscription.

[3] The plain stop *t* in Viñas Urquiza’s (1974) attestation of the Vejoz reflex must be a mistranscription.

Najlis 1984: 21 (*t’uhlu*)

**ʔuwáte(ʔ)χ* [?] **C’uwáte(ʔ)χ* [1] ‘puma’

Ni <xum>*p’uβatex*, <xum>*p’uβatxe-s* (Seelwische 2016: 158) • PCh **k’uwáhlah*, **k’uwáhla-s* > Ijw *k’iwáhla*; I’w *iwáhla (-s)*; Mj *ʔiwáhla (-s)* (Carol 2014a: 99; Drayson 2009: 138; Gerzenstein 1983: 132; Carol 2018) • PW **ʔowátax* ~ **C’owátax*, **ʔowátá-s* [?] **C’owátá-s* [1 2] > LB *p’uwałax*; Southeastern (Pozo Yacaré) *puwałox*; Guisnay (Alto de la Sierra) *powátah*; Vej *owátah*; ’Wk *t’owátax*, *t’owátá-s* (Braunstein 2009: 55; Lunt 2016: 71; Viñas Urquiza 1974: 69; Gutiérrez & Osornio 2015: 22; Claesson 2016: 448)

[1] Nivačle and Lower Bermejeño point to PM **p’uwátex* > PW **p’owátax*; ’Weenhayek to PM **t’owátex* > PW **t’owátax*, Vejoz to PM **ʔowátex* > PW **ʔowátax*, and Chorote to PM **k’uwátex*.

[2] The lowering of PM **u* to PW **o* is irregular.

Najlis 1984: 20 (**t’wahla*); Campbell & Grondona 2007: 19

**ʔVláʔah*, **ʔVláʔa-ts* [1] ‘lesser grison’

Mk *ile (-j)* (Gerzenstein 1999: 198) • Ni *ʔakláʔa (-s)* (Seelwische 2016: 38) • PCh **ʔeláʔah* [?] **ʔaláʔah*, **ʔaláʔa-s* > Ijw *ʔeláʔa*, *ʔeláh-as*; I’w *aláah (-as)*; Mj *ʔaláʔa (-s)* (Drayson 2009: 96; Gerzenstein 1983: 119; Carol 2018) • PW **ʔiláʔah*

> Vej *ilaʔa-tah*; 'Wk *ʔiláʔah* 'southern river otter' (Viñas Urquiza 1974: 60; Claesson 2016: 29)

[1] Maká points to PM **ʔeláʔah*, **ʔeláʔa-ts* or **ʔiláʔah*, **ʔiláʔa-ts*, Iyojwa'aja' to PM **ʔeláʔah*, **ʔeláʔa-ts*, Wichí to **ʔiláʔah*, **ʔiláʔa-ts*, whereas Nivaçle, Iyo'awujwa', and Manjui point to PM **ʔaláʔah*, **ʔaláʔa-ts*.

Najlis 1984: 36 (**elaatha* 'neotropical otter')

10.2 Derivational affixes (nouns)

***-äk, *-h-aj^h 'participle, resultative nominalization'**

Mk *wit-...-ek* (Gerzenstein 1994: 225) • Ni *-atf* [1] (Seelwische 2016: 37) • PCh **-ek*, **-h-aj^h* > Ijw *-ik*, *-h-aʔ* [1]; Mj *-ek*, *-h-aj* (Carol 2014b,a, 2018) • PW **-eq*, **-h-aj^h* > LB *-eq*, *-h-aç*; 'Wk *-ek*, *-h-aç* (Nercesian 2014: 150, 192; Alvarsson & Claesson 2014: 444)

[1] Iyojwa'aja' *-ʔ* in the plural form is not the regular reflex of PCh **-j^h*.

Obviously related to Proto-Guaicuruan **-ek* 'result or action nominalizer' (Viegas Barros 2013b, #719; cf. Viegas Barros 2013a: 317).

Viegas Barros 2013a: 317 (**-ek* ~ **-ik*)

***-aχ 'nominalizer (abstract nouns)' [1]**

Mk *-aχ (-its)* (Gerzenstein 1994: 219; Gerzenstein 1999: 194, 221, 368) • Ni *-ax* (Campbell et al. 2020: 108)

[1] Viegas Barros (2013a: 317) reconstructs this nominalizer as **-tsah* ~ **-ah*, as if these were two allomorphs of the same suffix. In our reconstruction, these two morphemes have different vowels (**-aχ* vs. **-tseχ*) and are hardly related to each other.

Viegas Barros 2013a: 317 (**-ah* 'nominalizer')

***-eʔ 'feminine' (not productive)**

Mk *-iʔ* (Gerzenstein 1994: 152) • Ni *-eʔ* (Campbell et al. 2020: 107) • PCh **-eʔ* > Ijw/I'w/Mj *-eʔ* (Carol 2014b,a, 2018) • PW **-e* > LB/Vej *-e*; 'Wk *-eʔ* (see PM **-áseʔ* 'daughter')

Possibly related to Proto-Guaicuruan **-ʔé* 'feminine' (Viegas Barros 2013b, #741; cf. Viegas Barros 2013a: 317).

Viegas Barros 2013a: 317 (**-e*)

***-φah, *-φa-ts 'companion'**

Mk *-fe* [1] (*-ts*) (Gerzenstein 1999: 142, 162, 210, 230, 286, 302–303, 386, 393) • Ni *-φa (-s)* (Seelwische 2016: 127; Fabre 2014: 105) • PCh **-hwah*, **-hwa-s* > Ijw

-hwa (-s); I'w *-f^wa* (-j) [1]; Mj *-hwa*, *-hwa-a-j* [1] (Drayson 2009: 132; Gerzenstein 1983; Carol 2018) • PW **-x^wah*, **-x^wa-s* > LB *-f^wa* (-j) in *-tj^we<f^wa>* (-j) 'spouse' [2]; 'Wk *-x^wah*, *-x^wa-s* (Nercesian 2014: 163; Claesson 2016: 162)

[1] Gerzenstein (1999) documents two variants of this suffix, *-fe* (in *-xefe* 'compatriot, fellow Indigenous person', *-kife* 'neighbor') and *-fe?* (*-eku-fe?* 'eating companion', *-tseti-fe?* 'compatriot', *-?exujhi-fe?* 'enemy'). In the New Testament, this suffix is always attested as *-fe*: *j-eku-fe* 'the one who eats with me' (Mark 14:18), *ji-tseti-fe* 'my compatriot' (Romans 16:11), *t-?exujhi-fe* 'his enemy' (1 Corinthians 15:26).

[2] The plural form in Lower Bermejeño Wichí is non-etymological.

Possibly related to Proto-Guaicuruan **-awa* ~ **-aqawa* 'companion' (Viegas Barros 2013b, #711).

Najlis 1984: 15 (**ce(h)l-hwa* 'spouse')

*-(*ha*-)*ja*'x [1] 'nominalizer (abstract nouns)'

Mk *-(he-)je'x* / *-e'x* [2] / *-he-ji(°)x* [3] (Gerzenstein 1994: 220) • Ni *-(xa-)jaf* / *-af* [4] (Campbell et al. 2020: 136–137) • PCh **-(ha-)jah* > Ijw/Mj *-(ha-)je* (Carol 2014b, 2018) • PW **-(ha-)jaχ* > LB *-(ha-)jaχ* (-aj); 'Wk *-(ha-)jax*, *-(ha-)jah-aj* (Nercesian 2014: 161, 204–205, 421–422; Alvarsson & Claesson 2014: 442)

[1] The element **-ha-* occurs in some nominalizations but not in others. At least in Chorote, it is possible that the allomorph **-jah* is phonologically conditioned, occurring after stems that end in low vowels. This allomorphy pattern awaits further study.

[2] The allomorph *-e'x* in Maká is found after *j*.

[3] The preglottalized coda in Maká is attested in the New Testament: *wit-?ijin-heje'x* 'demand' (1 Timothy 4:5), *wit-?ik-heji'x* 'path' (Romans 3:17). The latter noun is also attested as *-?ik-hejix*, though (Luke 13:33; cf. also Unu'üneiki Patricia 2011: 17).

[4] The allomorph *-af* in Nivačle occurs after consonants.

*-*ha*'t, *-*hat-ets* ~ *-*hat-its* 'instrument nominalizer'

Mk *-he't* [1], *-het-its* (Gerzenstein 1999: 362, 363, ...) • Ni *-xat* (*-es* ~ *-is*) (Fabre 2014: 100–101; Campbell et al. 2020: 118) • PCh **-hat* (**-is*) > Ijw *-hat* (*-is*); I'w *-hat* (*-es*); Mj *-hat* (*-es* ~ *-is*) (Carol 2014b; Gerzenstein 1983: 135, 147; Carol 2018)

[1] The preglottalized coda in the Maká singular form is attested in the New Testament in derivatives such as *wit-eqhun-he't* 'medicine' (Revelations 3:18).

Obviously related to Proto-Guaicuruan **-aqate* 'instrument nominalizer' (Viegas Barros 2013b, #714; cf. Viegas Barros 2013a: 317).

Viegas Barros 2013a: 317 (**-hate*)

*-*kat* 'collective of plants'

Mk *-ket*, *-et* (after *k*) (Gerzenstein 1994: 151–152) • Ni *-tfat* / *-kat* (after *V_[+back][C_[+grave]]*) (Fabre 2014: 77) • PCh **-kat* > Ijw *-k^jet*; I'w *-ket* ~ *-k^jet*;

Mj *-k^jet* (Carol 2014b; Gerzenstein 1983: 119–120, 145, 151, 158, 173; Carol 2018)
 • PW **-k^jat*, **-at* (after **k^w*, **q*) > LB *-t^fat*, *-at* (after *k^w*, *q*); 'Wk *-k^jat*, *-at* (after *k*) (Nercesian 2014: 193; Claesson 2016: 19, 139, 152, 186, 225, 326, 466)

Possibly related to Proto-Guaicuruan **-t^fate* 'collective of trees (suffix)' (Viegas Barros 2013b, #751).

***-keʔ (*-j^h) 'feminine'**

Mk *-kiʔ* (-j) (Gerzenstein 1994: 152; Gerzenstein 1999: 137, 142) • Ni *-t^fe* / *-ke* (after *V_[+back](C_[+grave])*) (-j) (Fabre 2014: 104–105) • PCh **-keʔ* (*-j^h) > Ijw *-kiʔ* (-wa), *-jis*, -l) [1]; I'w *-kiʔ*, *-ki-jh*; Mj *-kiʔ* (-jh) (Carol 2014b; own field notes; Carol 2018) • PW **-k^je* (*-j^h) > LB *-t^fe* (-j) in *?af^wen<t^fe>* (-j) 'bird'; 'Wk *-k^jeʔ* (-ç) in *?ax^wén<k^je>* (-ç) 'bird' (Nercesian 2014: 196, 253; Claesson 2016: 10)
 [1] The plural allomorphs in Iyojwa'aja' are non-etymological.

Campbell & Grondona 2007: 16; Gutiérrez 2015b: 64

***-^ʔmat 'negative quality, physical defect'**

Mk *-^ʔmet* [1] 'physical defect' (Gerzenstein 1999: 216, 328) • Ni *-^ʔmat* (Fabre 2014: 226) • PCh **-^ʔmat* in **-<hwá>^ʔmat* 'disease' (see PM **-φá-^ʔmat*disease)
 [1] The preglottalization in the initial consonant of the Maká reflex is attested in the New Testament in derivatives such as *eq^fe-^ʔmet* 'ill' (Revelations 8:12), [*i*]tawxe-^ʔmet 'to worry' (literally 'to be bellyless/spiritless').

***-(ha-)na^ʔχ, *(ha-)nha-ts 'agent nominalizer' ('the one who typically does X')**

Mk *-(he-)na^ʔχ* [1], *-(he-)nhe-ts* (Gerzenstein 1994: 222) • Ni *-(xa-)nax*, *-(xa-)nxa-s* (fem. *-(xa-)nxa*, *-(xa-)nxa-j*) (Fabre 2014: 111; Campbell et al. 2020: 116–117)

[1] The preglottalized coda in the Maká singular form is attested in the New Testament in derivatives such as *eku-na^ʔχ* 'glutton' (Luke 7:34).

Viegas Barros (2013a: 315) compares this prefix to Proto-Guaicuruan **-(^ʔ)naqa* 'the one who has a lot of X' (Viegas Barros 2013b, #709).

Viegas Barros 2013a: 317 (**-nah* ~ **-hanah*)

***-^ʔp 'season'**

Mk *-^ʔp* [1], *-p-its* (Gerzenstein 1999: 121, 202, 389; Tekombo'e ha Tembikuaa Motenondeha 2020: 23–25) • Ni *-(^ʔ)p* (Fabre 2014: 118) • PCh **-p* > Ijw *-(i)p*; Mj *-(e)p* (Carol 2014b,a, 2018) • PW **-p* in **k^jét-k^ju-p* 'fall season', **náwo<p>* 'spring'

[1] In the New Testament, the coda in the Maká singular form is attested as preglottalized in *xinawa-^ʔp* 'spring' (e.g. Mark 13:28), but not in *ininqa-p* 'summer, year' (e.g. Acts 18:11) and *lo-p* 'winter' (John 10:22). This must be a mistranscription, as the forms *xinawa-^ʔp*, *ininqa-^ʔp*, *lo-^ʔp*,

anheji-ʔp, *kele-jku-ʔp* (misspelt as <keleikuʔp>) are documented in Tekombo'e ha Tembikuaa Motenondeha (2020: 23–25).

***-qá- (before C) / *-q- (before V) ‘indirect possession’**

Mk *-qe-* / *-qa-* / *-qo-* / *-q-* (Gerzenstein 1994: 149) • Ni *-ka-* / *-k-* (Fabre 2014: 86–88; Seelwische 2016: 53) • PCh **-qá-* / **-q-* > Ijw/I'w/Mj *-ká-* / *-k-* (Carol 2014b; Gerzenstein 1983: 136–137; Carol 2018) • PW **-qá-* / **-q-* > LB *-qa-*; 'Wk *-qá-* / *-q-* (Nercesian 2014: 168; Claesson 2016: 88, 305)

Viegas Barros (2013a: 315) compares this prefix to Proto-Guaicuruan **q'o(ʔm)* ‘person’ (Viegas Barros 2013b, #540).

Viegas Barros 2013a: 317 (**q'a-*)

***-taχ, *-ta-ts ‘pseudo-, augmentative’**

Mk *-taχ*, *-te-ts* (Gerzenstein 1999: 142, 174, 236, 278, 281, 294, 331, 386) • Ni *-tax*, *-ta-s* (Fabre 2014: 103–104; Seelwische 2016: 249) • PCh **-tah*, **-ta-s* > Ijw/I'w/Mj *-ta* (-s) (Carol 2014a: 99; Gerzenstein 1983: 120, 161; Carol 2018) • PW **-taχ*, **-ta-s* > LB *-taχ*, *-ta-s*; 'Wk *-tax*, *-ta-s* (Nercesian 2014: 196; Alvarsson & Claesson 2014: 441)

Viegas Barros 2002: 144 (**-taχ*)

***-tseχ, *-tse-ts ‘notable quality’**

Mk *-tsaχ*, *-tsi-ts* (Gerzenstein 1994: 223; Gerzenstein 1999: 122, 223, 225, 307) • Ni *-tsex*, *-tse-s* (Fabre 2014: 223–224) • PW **-tsaχ*, **-tse-s* > LB *-tsaχ*, *-tse-s*; 'Wk *-tsax*, *-tse-s* (Nercesian 2014: 210–211; Alvarsson & Claesson 2014: 441)

[1] Viegas Barros (2013a: 317) reconstructs this nominalizer as **-tsah* ~ **-ah*, as if these were two allomorphs of the same suffix. In our reconstruction, these two morphemes have different vowels (**-aχ* vs. **-tseχ*) and are hardly related to each other.

Possibly related to Proto-Guaicuruan **-ts'aga* ‘the one who has or does X a lot’ (Viegas Barros 2013b, #770; cf. Viegas Barros 2013a: 317).

Viegas Barros 2013a: 317 (**-tsah* ~ **-ah* ‘nominalizer’)

***-(j)u'k, *(j)ku-j^h ‘tree (suffix)’ [1]**

Mk *-(j)u'k*, *-(j)kw-i* (Gerzenstein 1999; UNICEF & Tekombo'e ha Tembikuaa Motenondeha 2022: 7) • Ni *-(j)uk*, *-ku-j* (Fabre 2014: 116) • PCh **-(j)uk*, **-(j)ku-j^h* > Ijw *-uk* / *-(j)ik*, *-k^hu?* / *-t^hu?*; I'w *-uk* / *-(j)ik*, *-ki?* / *-si?*; Mj *-uk* / *-(j)ik*, *-ki?* / *-fi?* (Carol 2014b; Gerzenstein 1983; Carol 2018) • PW **-(j)uk^w*, **-k^hu-j^h* > LB *-jek^w*, *-t^he-j*; 'Wk *-(j)uk*, *-k^hu-ç* (Nercesian 2014: 192; Claesson 2016: 162, 187)

[1] In most languages, the PM sequence **...a-juk* suffers contraction of **aju* into **e*.

Obviously related to Proto-Guaicuruan **-iko* ‘tree (suffix)’ (Viegas Barros 2013b, #706; cf. Viegas Barros 2013a: 317).

Viegas Barros 2013a: 317 (**-uk*)

***-^ʔw- ‘relationalizing prefix’**

Mk -^ʔw- [1] (Gerzenstein 1999: 251, 370) • Ni -^ʔβ- (Fabre 2014: 89–90) • PCh *-^ʔw- > Ijw -^ʔw-; Mj -w- [3] (Drayson 2009: 94, 127; Carol 2018)

[1] Identifiable in the pair *efu* ‘woman’ / -^ʔw-*efu* ‘female’ and possibly in -^ʔw-*extits-i?* ‘lie’ / *extitsax* ‘liar’. The preglottalization is attested in the New Testament (*te-^ʔw-extits-i?*; Ephesians 6:11).

[2] The prefix can be seen in the pair *?álisha* ‘caraguatá’ / -^ʔw-*álisha* ‘caraguatá of’.

[3] The absence of glottalization in Manjui is irregular. The prefix can be seen in the pair *?álasa* ‘caraguatá (of an unspecified plant)’ / -w-*álasa* ‘caraguatá of’.

10.3 Valence and spatial suffixes or clitics

***-ah ‘towards (often metaphoric)’**

Ni -a (Fabre 2014: 159–161) • PCh *-ah > Ijw/I^ʔw/Mj -ah (Carol 2014b; own field notes; Carol 2018) • PW *-ah > LB -a ‘near’; ^ʔWk -eh [1] (Nercesian 2014: 249; Alvarsson & Claesson 2014: 450)

[1] The reflex in ^ʔWeenhayek is irregular; one would expect *-ah.

***-(a)^ʔm ~ *(-ä)^ʔm ‘for (benefactive)’**

Mk -(e)^ʔm [1] (Gerzenstein 1994: 126) • Ni -(a)m (Fabre 2014: 179–180)

[1] The preglottalized coda in the Maká reflex is documented in the New Testament, as in the forms of the verb ‘to tell’: *ni-fel-i-^ʔm*, *he-n-fel-e-^ʔm* (Luke 1:73; Luke 4:18).

Viegas Barros (2013a: 316) compares this suffix to Proto-Guaicuruan *-ma ‘benefactive’ (Viegas Barros 2013b, #337).

Viegas Barros 2013a: 316 (*-m)

***-ej^h [1] ‘far (distal)’**

Mk -ij (Gerzenstein 1999: 342) • Ni -ej (Campbell et al. 2020: 281) • PCh *-ej^h > Ijw -e, Mj/I^ʔw -ej^h (Carol 2011: 55, 2014b, 2018) • PW *-ej^h > LB -ej (Nercesian 2014: 276)

[1] The vowel *-e- in this suffix is likely a third-person suffix.

***-ex [1] ‘instrumental’**

Mk -ix (Gerzenstein 1999: 127–128) • Ni -ef (Campbell et al. 2020: 386–391) • PCh *-eh > Ijw/I^ʔw/Mj -e (Carol 2011: 55, 2014b; own field notes) • PW *-eχ > LB -eχ; ^ʔWk -ex (Nercesian 2014: 134; Alvarsson & Claesson 2014: 450)

[1] The vowel *-e- in this suffix is likely a third-person suffix.

***-*φ*ih / *-*qφ*ih / *-*kâφ*ih [1] ‘below, beneath’**

Mk -fi (Gerzenstein 1999: 123) • Ni -<?a>kφi ~ -<?a>kxi ~ -<?â>kφi ~ -<?â>kxi

[2] (Fabre 2014: 169; Seelwische 2016: 36; Campbell et al. 2020: 8) • PCh

**káhwiĥ* / **káhwiĥ* ‘inside, below, beneath’ > Ijw *k’ahwéh* / *-k’áhwe*; **qih-wiĥ* / **qihwiĥ* > I’w *-kif’wi*; Mj *kihwiĥ* / *-kéihwi* (Carol 2014b; Drayson 2009: 135; Gerzenstein 1983: 127; Carol 2018; Hunt 1994) • PW **=qx^{wiĥ}* / **=k’áx^{wiĥ}* > LB [*ʔi*]*qf^{wi}* / *=qf^{wi}* [3] / *=tʃef^{wi}* [4]; Vej *tʃuh^{wi}* [4] ‘inside’; ’Wk *-k’áx^{wiĥ}* (Nercesian 2014: 249, 276; Viñas Urquiza 1974: 53; Claesson 2016: 218; Alvarsson & Claesson 2014: 450)

[1] PM **-phiĥ* is preserved in Maká, **-qphiĥ* in Nivačle and Lower Bermejeño Wichí, **-káphiĥ* in Chorote and Wichí.

[2] The variants with *φ* are found in the Shichaam Lhavos dialect; *-ʔákxi* (~ *-βákxi*) is documented by Campbell et al. (2020: 285–286) for the Chishamnee Lhavos dialect; *-ʔakxi* is attested by Seelwische (2016: 36) for Yita’ Lhavos.

[3] Nercesian (2014) actually gives LB *=f^{wi}*, but in all her examples the clitic is preceded by a *q*.

[4] LB *e* and Vej *u* are not the regular reflex of PW **á*.

**-φVk’e(ʔ)* [1] ‘outside’

Mk *-fik’i* (Gerzenstein 1994: 117) • Ni *-fatʃ’eʔ* (Fabre 2014: 169)

[1] Maká points to **-φek’e* or **-φik’e*; Nivačle to **-φak’eʔ* or **-φák’eʔ*.

Viegas Barros (2013a: 316) compares this suffix to Proto-Guaicuruan **-ek’e* ‘outwards’ (Viegas Barros 2013b, #725).

Viegas Barros 2013a: 316 (**(-)*h^wek’e)

**-hat* ‘(direct) causative’

Mk *-het* (Gerzenstein 1999: 107) • Ni *-xat* (Fabre 2014: 216–217; Seelwische 2016: 146) • PCh **-hat* > Ijw/I’w/Mj *-hat* (Carol 2014b; own field notes) • PW **-hat* > LB *-hat*; ’Wk *-hat* (Nercesian 2014: 253–254; Claesson 2016: 146)

Viegas Barros (2013a: 317) compares this suffix to Proto-Guaicuruan **-aq-atV* ~ **-atV* ‘instrumental transitivizer’.

Viegas Barros 2013a: 318 (**-qVt* ~ **-hVt* ~ **-Vt*)

**-han* ‘(indirect) causative; antipassive’ [1 2]

Mk *-hen<in>*; *-<ts>hen* ‘causative’ (Gerzenstein 1999: 106) • Ni *-xan* (Fabre 2014: 310) • PCh **-han* > Ijw/Mj *-han* (Carol 2014b; own field notes)

[1] This suffix is preserved in Wichí only in fossilized derivations (as in PW **[ʔi]k’ún<han>* ‘to feed’, which goes back to PM **[ʔi]kún-han* but is no longer analyzable).

[2] It is possible that **-han* ‘(indirect) causative’ and **-han* ‘antipassive’ were originally two distinct morphemes. Only the former, but not the latter, might have been a reduced allomorph of a longer suffix **-hajin*, with reflexes in Nivačle (Fabre 2014: 217) and Chorote (after low vowels, with **...á-ha.../...*a-ha...* yielding **á* / **a*, as in PCh **[ʔi]má-jin* ‘to make sleep’ and **-já-jin-APPL* ‘to give to drink’).

This suffix could be related to Proto-Guaicuruan **-aqen* ‘agentive transitivizer’ (Viegas Barros 2013b, #727).

***=*haju?* ‘prospective; desiderative’**

Mk *-hiju?* / *-heju?* [1] (Gerzenstein 1994: 109–111) • Ni *=xaju* (Fabre 2014: 219; Campbell et al. 2020: 313–314) • PCh **-haju?* > I’w *-má-ju?* ‘to want to sleep’; Mj *-haju?* ~ *-haji?* ~ *-hee?* (Carol 2014b; Gerzenstein 1983: 105; Carol 2018)

[1] The suffix-final glottal stop is not represented in Gerzenstein (1994), but it found in most available examples in Gerzenstein (1999). After some consonants the *h* is lost. After vowels other than *i*, one finds the allomorphs *-ju* / *-jo*, and after *j* the suffix may be simply *-u* in Maká. The alternation *i* / *e* is irregular.

***=*käj* ‘antipassive’**

Mk *-kij* [1] (Gerzenstein 1994: 119) • Ni *-tfaj* (Fabre 2014: 198–199) • PCh **-kej?* > Ijw *[ta]k(á)-...-ki?*; Mj *[ti]k(á)-...-kij?* (Carol 2014b, 2018)

[1] The Maká reflex is irregular; one would expect *-kej*.

***=*k’^je* ‘along; distributive, plural object’ [1]**

Mk *-k’ⁱ* (Gerzenstein 1994: 125) • Ni *-tf’e(?)* / *-k’e(?)* (Fabre 2014: 165–167; Campbell et al. 2020: 112, 278–279) • PCh **-k’e?* > Ijw *-k’ⁱ?*; Mj *-?i?* (Carol 2014b,a, 2018) • PW **-k’e* [2] > LB *-tfe*; ’Wk *-k’e?* (Nercesian 2014: 134; Alvarsson & Claesson 2014: 439; Claesson 2016: 186)

[1] We refer the reader to Fabre’s (2018) study on the functions of this suffix.

[2] The initial consonant irregularly deglottalized in Wichí.

***=*k’oja(?)* / **-k’ója(?)* ‘before, for’**

Ni *-k’ója* ‘before, for, than’ (Fabre 2014: 184–186; Seelwische 2016: 88; Campbell et al. 2020: 284) • PCh **k’ojá?* / **-k’ója?* ‘for’ > Ijw *k’ijé* / *-k’^jóje* [1]; Mj *?ijé?* / *-?óje?* (Carol 2014a: 90; Drayson 2009: 138; Carol 2018) • PW **-k’^jója* > LB *-tf’uja* ‘sensorially’; Vej *-tf’oje* ‘inside’ [2]; ’Wk *-k’^joje?* ‘invisible, absent’ [2] (Nercesian 2014: 313–315; Viñas Urquiza 1974: 53; Gutiérrez & Osornio 2015: 35; Alvarsson & Claesson 2014: 450)

[1] Ijw *k’ijé* / *-k’^jóje*, which lacks a word-final glottal stop and thus ends in an underlying /h/, is irregular. One would expect **k’ijé?* / **-k’^jóje?*.

[2] Vej/’Wk *e* is not the regular reflex of PW **a*.

***=*taxam* ~ **-ä-* ‘into, entering’**

Mk *-texem* (Gerzenstein 1994: 118) • Ni *-tafam* (Fabre 2014: 176–177)

***=*wä’t* ‘reflexive’ [1]**

Mk *-wet-* ~ *-t-* [2] (Gerzenstein 1994: 117) • Ni *-bat-* / *-βa’t-* (Campbell et al. 2020: 297–298) • PCh **-wét* ‘reflexive/reciprocal’ > Ijw *wit-á’m* [3] ‘reciprocal

(with an object as the antecedent)'; I'w *-wét*; Mj *-wét* 'reflexive/reciprocal' (Carol 2014b; Drayson 2009: 157; Gerzenstein 1983: 169–170; Carol 2018)

[1] At least in Iyo'awujwa' and Manjui the reflexes of this marker (which precedes the verb) are phonologically independent from the verb. The hyphen on the left indicates the slot that corresponds to the subject (agent), not to the verb.

[2] The Maká reflex unexpectedly lacks a preglottalized coda, as attested in the New Testament (e.g. *wet-fel* 'to greet'; Philemon 1:23).

[3] Ijw *-á'm* corresponds to the applicative PCh **-hãm* 'through'. The lack of palatalization in *t* is unexpected after a pretonic PCh **e > i*. The palatalization process may have been inactive when **wét* lost its stress and changed to *wit*, or maybe both morphemes merged when palatalization was inactive.

***-xA'm [1] 'general locative'**

Mk *-xe'm* [2] 'through' (Gerzenstein 1994: 119–120) • Ni *-fa'm / -xa'm* (after $V_{[+back]}(C_{[+grave]})$) (Fabre 2014: 169–170; Campbell et al. 2020: 286–288) • PCh **-há'm* > Ijw/I'w/Mj *-ha'm* (Carol 2014b; own field notes)

[1] Maká points to PM **-xa'm* or **-xã'm*; Iyojwa'aja' to PM **-xã'm*, whereas Nivaçle, Iyo'awujwa', and Manjui are ambiguous in this sense.

[2] The preglottalized coda in the Maká reflex is attested in the New Testament (e.g. *tux-xe'm* 'to burn'; Ephesians 6:16).

Gutiérrez 2015b: 64

***-xi? 'inside a recipient'**

Mk *-xi?* (Gerzenstein 1994: 119) • Ni *-fi / -xi* (after $V_{[+back]}(C_{[+grave]})$) (Campbell et al. 2020: 289–290) • PCh **-hi?* > Ijw/I'w *-hi?*; Mj *-hij?* (Carol 2011: 55, 2014b; own field notes; Carol 2018) • PW **-hi* > LB *-hi*; Wk *-hi?* (Nercesian 2014: 148; Claesson 2016: 148)

Viegas Barros (2013a: 316) compares it to the Proto-Guaicuruan locative suffix **-gi* (Viegas Barros 2013b, #790).

Viegas Barros 2002: 143 (**-xij*); Viegas Barros 2013a: 316 (**-hij*); Gutiérrez 2015b: 64

***-xop 'next to, surrounding'**

Mk *-xup* (Gerzenstein 1994: 129) • Ni *-xop* (Fabre 2014: 174–175) • PCh **-hop* [1] > Ijw *-hap*; I'w *-hop*; Mj *-hap* (own field notes)

[1] We reconstruct PCh **-hop* based on the regular correspondence between I'w *-hop* (attested in our field notes with person prefixes) and Nivaçle. The Ijw/Mj reflex *-hap* (underlying *-hâp* in Ijw) is irregular.

Viegas Barros (2013a: 320) compares this to Proto-Guaicuruan **-atʔap* 'near, next to' (Viegas Barros 2013b, #154), which could be spurious.

Viegas Barros 2002: 142 (**-xop*); Viegas Barros 2013a: 320 (**-hVp* 'near')

***-xoʔ** ‘down / inwards’

Mk *-xuʔ* ~ *-xoʔ* ‘down’ (Gerzenstein 1994: 118) • PW **-ho* > LB *-hu* ‘inwards, entering, for’; ^ʔWk *-hoʔ* ‘entering, exiting, for’ (Nercesian 2014: 249, 259; Claesson 2016: 151; Alvarsson & Claesson 2014: 450)

***-xuʔt** ‘in front of, approaching’

Mk *-xuʔt* ‘in front of’ [1] (Gerzenstein 1994: 128) • Ni *-xuʔt* ‘approaching; same as’ (Fabre 2014: 182–184)

[1] The preglottalized coda in the Maká applicative suffix is attested in the New Testament (e.g. [t]ʔ*ekuʔm-ixuʔt* ‘to grab something from one’s front’; Luke 24:43).

***ʔapé(-ʔeʔ) / *-tápe(-ʔeʔ)** ‘on, on top of’

Ni =*ʔape<ʔe>* / *-tápe<ʔe>* (Fabre 2014: 167–168; Seelwische 2016: 47; Campbell et al. 2020: 337–338) • PCh **ʔapé<ʔeʔ>* / **-tépe<ʔeʔ>* [1] > Ijw *ʔapéʔe* / *-tépeʔe* [2]; Iʔw *apéʔe* [2]; Mj *ʔapéʔeʔ* / *-tépeʔeʔ* (Carol 2014b; Drayson 2009: 94; Gerzenstein 1983: 126; Carol 2018) • PW **-ʔpeʔ* / **-t(a)peʔ* [3] > LB =*peʔ*; Vej *-nu-pe* ‘to surpass’; ^ʔWk *-ʔpeʔ* / *-t(a)peʔ* (Nercesian 2014: 276; Viñas Urquiza 1974: 69; Alvarsson & Claesson 2014: 450)

[1] Chorote appears to have undergone some sort of vowel harmonization.

[2] Ijw *ʔapéʔe* / *-tépeʔe* and Iʔw *apéʔe*, which lack a word-final glottal stop and thus end in an underlying /h/, are irregular (in fact, this could be a mistranscription for *ʔapéʔeʔ* / *-tépeʔeʔ*).

[3] PW **-ʔpeʔ* unexpectedly lack a vowel between **ʔ* and **p*.

10.4 Demonstratives

***h-** ‘that (outside the speaker’s sight)’

Mk M *haʔ*, PL *heʔ* (Gerzenstein 1994: 166) • Ni M *xaʔ*, F *t-xaʔ*, PL.H *xa-piʔ*, PL.NH *xa-βaʔ* ‘absent at utterance time; firsthand evidence available’ (Gutiérrez 2015a: 415; Campbell et al. 2020: 175) • PCh M **háʔ* ~ **háʔ*, F **hla-háʔ* ~ *hlâ-háʔ*, PL.H **ha-púʔ* ~ **hâ-púʔ*, PL.NH **ha-wáʔ* ~ **hâ-wáʔ* > Ijw M *háʔ*, F *hla-háʔ*, PL.H *ha-póʔ*, PL.NH *ha-wáʔ* ‘that (outside the speaker’s sight but seen before)’; Mj M *ha*, F *la-ha*, PL.H *ha-pʊ*, PL.NH *ho-wa* (Carol 2014a: 78, 2014b; Drayson 2009: 169; Carol 2018)

***k-** ‘that (outside the speaker’s sight)’

Mk M *kaʔ*, F *keʔ*, PL *ke-kheweʔ* ~ *keʔ* ‘that (outside the speaker’s sight but seen before)’ (Gerzenstein 1994: 166) • Ni M *kaʔ*, F *t-kaʔ*, PL.H *ka-piʔ*, PL.NH *ka-βaʔ* [1] ‘no longer in existence, deceased, or moving across one’s field of vision about to move out of sight; firsthand evidence available’ (Gutiérrez 2015a: 415;

Campbell et al. 2020: 175) • PCh M **káʔ*, F **ha-káʔ* ~ **há-káʔ*, PL.H **ká-púʔ*, PL.NH **ko-wáʔ* > Ijw M *k'áʔ* ~ *k<íʔ>*, F *ha-k'áʔ*, PL.H *k'á-póʔ*, PL.NH *ki-wáʔ* ~ *k'ju-wáʔ*; Mj M *k'jé*, F *ha-k'jé*, PL.H *k'e-pó*, PL.NH *k'o-wá* (Carol 2014b; Drayson 2009: 169; Carol 2018)

[1] The failure of PM **k* to palatalize in Nivačle before an *a* is unexpected. If the gender distinction seen in Maká goes back to Proto-Mataguayan, we might be dealing with contamination of PM **káʔ* (masculine) and **kaʔ* (feminine), whose expected reflexes in Nivačle would be **káʔ* and **ʔaʔ*, respectively.

[2] Possibly related to Proto-Guaicuruan **k'a* 'absent, [-visible]' (Viegas Barros 2013b, #337; cf. Viegas Barros 2013a: 313), though the semantic match is imperfect.

Viegas Barros 2013a: 313 (**kaʔ* 'this')

***-khaʔ** 'emphatic/pronominal base' [1 2], as in **ʔn-V-khaʔ*; **n-V-khaʔ*; **ts-V-khaʔ*; **h-V-khaʔ*; **k-V-khaʔ*; **p-V-khaʔ*

Mk M *n-a-khaʔ*, F *n-e-kheʔ*, PL *n-e-khe-weʔ*; M *tsa-kha-*, F *tse-khe-*; M *ha-khaʔ*, F *ki-kheʔ*, PL *he-khe-weʔ*; M *ka-khaʔ*, F *ke-kheʔ*, PL *ke-khe-weʔ*; M *pa-khaʔ*, F *pe-kheʔ*, PL *pe-khe-weʔ*; (Gerzenstein 1994: 170–172) • PCh **-hqa* [3] > Ijw *ʔná-ka*; *ná-ka*; *sé-ka*; *há-ka*; *k'á-ka*; *pá-ka*; I'w/Mj *ʔná-hak*; *ná-hak*; (*sí-hik*) [4]; *há-hak*; *k'é-hek*; *pá-hak* [5 6] (Carol 2014b, own field notes, 2018)

[1] In Chorote, demonstratives with this suffix are usually translated into Spanish as adnominal or pronominal demonstratives, whereas the corresponding forms without this suffix tend to be translated as articles. In Maká, this suffix is added to demonstrative bases to form emphatic and indefinite demonstratives (Gerzenstein 1994: 170–172). Furthermore, a form *-akhaʔ*, probably related, forms personal and possessive pronouns with personal prefixes, e.g. *j-akhaʔ* 'I, mine' (Gerzenstein 1994: 174–177).

[2] The Chorote reflex of the vowel does not allow to decide between PM **a* and **á*, and the Maká reflexes F *-khe-* alongside M *-kha-* suggest both. The vowel of the Maká suffix seems to copy the gender vowel of the base. However, in the Maká plural, where no gender distinction is involved, only the allomorph *-khe-* occurs, which suggests this is the basic one. Therefore, we reconstruct **-kha* rather than **-khá*.

[3] For simplicity, in Chorote only masculine singular forms are given. Notice, however, that, the plural suffix precedes the emphatic one, unlike in Maká: Ijw *ni-wá-ka*, I'w/Mj *nu-wá-hak* 'these ones (non-human)', etc.

[4] The form *sí-hik* is not attested for Iyo'awujwa' in our material.

[5] Iyo'awujwa' and Manjui show an irregular metathesis: **-hqa* > *-hak*.

[6] Most probably related are Manjui forms *Cá-hka-ta* such as *ná-hka-ta* 'this only one'.

***ʔ-** 'F (in demonstratives)', as of **ʔ-n-...*; **ʔ-ts-...*; **ʔ-h-...*; **ʔ-k-...*; **ʔ-p-...*

Ni *-*; *-*; *ʔ-xaʔ*; *ʔ-kaʔ*; *ʔ-paʔ* (Gutiérrez 2015a: 414–415; Campbell et al. 2020: 175) • PCh **ha-náʔ* ~ **há-náʔ*; **ha-séʔ* ~ **há-séʔ*; **hla-háʔ* ~ **hlá-háʔ*; **ha-káʔ*

~ *há-káʔ; *ha-páʔ ~ *ha-páʔ ~ *há-páʔ ~ *há-páʔ [1] > Ijw *ha-náʔ; ha-séʔ; hla-háʔ; ha-kʲáʔ; ha-páʔ*; Mj *ha-na; ha-síʔ ~ ha-sr; la-ha; ha-kʲé; ha-pá* (Carol 2014b; Drayson 2009: 169; Carol 2018)

[1] We have no convincing explanation for the fact that all contemporary Chorote varieties have *a* instead of the expected *i* in this prefix (except for *hla-háʔ ~ *hlâ-háʔ, where a low vowel was copied from *háʔ ~ *háʔ by means of translaryngeal harmony early enough so as to prevent *hl- from changing to *h²).

***ʎaʔ ‘this.F (within one’s hands’ reach)’**

Ni *ʎaʔ* ‘present at utterance time; firsthand evidence available (feminine)’ (Gutiérrez 2015a: 415; Campbell et al. 2020: 175) • PCh **hlaʔ<ah>* > Ijw *hlaʔa*; Iʼw *sʲú-hla*; Mj *hlaʔa* (Carol 2014b; Drayson 2009: 169; Gerzenstein 1983: 160; Carol 2018)

***n- ‘this (outside one’s hands’ reach)’**

Mk M *naʔ*, F *neʔ*, PL *ne-khe-weʔ ~ neʔ* (Gerzenstein 1999: 166) • PCh M **náʔ*, F **ha-náʔ*, PL.H **na-púʔ*, PL.NH **no-wáʔ* > Ijw M *náʔ ~ n<íʔ>*, F *ha-náʔ*, PL.H *na-póʔ*, PL.NH *ni-wáʔ ~ nʲu-wáʔ*; Mj M *ná*, F *ha-ná*, PL.H *na-pé*, PL.NH *no-wá* (Carol 2014b; Drayson 2009: 169; Carol 2018) • PW **=nah* ‘this (within one’s hands’ reach)’ > LB/Vej *=na*; ʼWk *-nah*; (?) **=n<ih>* ‘this (outside one’s hands’ reach, vertical)’ > LB *=ni*; ʼWk *-nih ~ -nâh ~ -noh* (Nercesian 2014: 177–178; Gutiérrez & Osornio 2015: 70; Alvarsson & Claesson 2014: 446) Possibly related to Proto-Guaicuruan **na* ‘proximal, in movement’ (Viegas Barros 2013b, #420; cf. Viegas Barros 2013a: 313).

Viegas Barros 2013a: 313 (**nʎʔ ~ *naʔ* ‘this’)

***ʎnaʔ ‘this.M (within one’s hands’ reach)’**

Mk M *haʔ-neʔ*, F *e-neʔ*, PL *e-ne-weʔ* (Gerzenstein 1994: 166) • Ni M *naʔ*, PL.H *na-piʔ*, PL.NH *na-βaʔ* ‘present at utterance time; firsthand evidence available (masculine)’ (Gutiérrez 2015a: 415; Campbell et al. 2020: 175) • PCh M **náʔ*, PL.H **na-púʔ*, PL.NH **no-wáʔ* > Ijw M *ʎnáʔ ~ ʎn<íʔ>*, PL.H *ʎna-póʔ*, PL.NH *ʎni-wáʔ ~ ʎnʲu-wáʔ*; Iʼw M *sʲúh-na*, PL.H *sʲúh-na-po*, PL.NH *sʲúh-nu-wa*; Mj M *ʎná*, PL.H *ʎna-pó*, PL.NH *ʎno-wá* (Carol 2014b; Drayson 2009: 169; Gerzenstein 1983: 161; Carol 2018)

***paʔ ‘that (outside the speaker’s sight and never seen before)’**

Mk M *paʔ*, F *peʔ*, PL *pe-khe-weʔ ~ peʔ* (Gerzenstein 1994: 166) • Ni M *paʔ*, F *ʔpaʔ*, PL.H *pa-piʔ*, PL.NH *pa-βaʔ* ‘absent at utterance time; firsthand evidence unavailable’ (Gutiérrez 2015a: 415; Campbell et al. 2020: 175) • PCh M **páʔ ~ *páʔ*, F **ha-páʔ ~ *ha-páʔ ~ *há-páʔ ~ *há-páʔ*, PL.H **pa-púʔ ~ *pâ-púʔ*, PL.NH **po-wáʔ* > Ijw M *páʔ ~ p<íʔ>*, F *ha-páʔ*, PL.H *pa-póʔ*, PL.NH *pu-wáʔ*;

Mj M *pá(?)*, F *ha-pá*, PL.H *pa-pó*, PL.NH *po-wá* (Carol 2014b; Drayson 2009: 169; Carol 2018) • PW **=pa<h>* > LB *=pa*; 'Wk *=pah* 'hearsay evidential' (Nercesian 2014: 186; Claesson 2016: 287)

***ts-** 'that (within the speaker's sight)'

Mk M *tsá?*, F *tse?*, PL *e-tsi-we?* (Gerzenstein 1994: 166) • PCh M **sé?*, F **ha-sé?* ~ **há-sé?*, PL.H **se-pú?*, PL.NH **so-wá?* > Ijw M *sé?* ~ *s'é?*, F *ha-sé?*, PL.H *s'á-pó?*, PL.NH *s'ú-wá?*; I'w M *s'ú-xs'é?*, F *s'ó-ho-se?*, PL.H *s'ú-xsa-po*, PL.NH *s'ú-xsu-wa*; Mj M *sí?* ~ *si*, F *ha-sí?* ~ *ha-si*, PL.H *se-pó*, PL.NH *so-wá* (Carol 2014b; Drayson 2009: 169; Gerzenstein 1983: 160–161; Carol 2018) • (?) PW **=ts<oh>* 'that (moving away); the one just mentioned' > LB *=tsu*; 'Wk *-tsoh*; (?) **=ts<ih>* 'this (outside one's hands' reach, horizontal)' > LB *=tsi*; 'Wk *-tsih* ~ *-tsáh* (Nercesian 2014: 180; Alvarsson & Claesson 2014: 446)

***-wá?** 'plural (non-human, demonstratives)'

Mk *-we?* (Gerzenstein 1994: 165–166) • Ni *-βa?* (Gutiérrez 2015a: 414–415; Campbell et al. 2020: 184) • PCh **-wá?* > Ijw *-wá?*; I'w *s'úhnu-wa* 'these'; Mj *-wá?* (Carol 2014b; Drayson 2009: 169; Gerzenstein 1983: 160; Carol 2018)

[1] The absence of a word-final glottal stop in Gerzenstein's (1983) attestation of this suffix must be a mistranscription.

Obviously related to Proto-Guaicuruan **-wa* 'dual' (Viegas Barros 2013b, #754; cf. Viegas Barros 2013a: 316).

Viegas Barros 2013a: 316 (**-wa*)

10.5 Inflectional prefixes

***ha-** (before C) / ***h-** (before V) / ***k'**- (coalescing with ***?..**) '1.A/S_A (realis)'

Mk *he-* / *ha-* / *ho-* / *h-* / *k'-*... (Gerzenstein 1994: 98; Messineo 2015: 132) • Ni *xa-* / *x-* / *k'-*... (Fabre 2014: 145; Seelwische 2016: 143) • PCh **?a-* / **∅-* > Ijw *?a-* / *∅-*; I'w *a-* / *a-* ~ *∅-*; Mj *?a-* / *∅-* (Carol 2014b; Drayson 2009: 168; Gerzenstein 1983: 73; Carol 2018) • PW **?a-* > 'Wk *?a-* ("informal sociolect") (Alvarsson 2012b: 58)

Viegas Barros (2013a: 314) compares this prefix to Proto-Guaicuruan **tV-* ~ **tV-* '1.A/S_A'.

Viegas Barros 2002: 144 (**χa-*); Viegas Barros 2013a: 314 (**ha-*).

***ji-** (before C) / ***j-** (before V) / ***?j-** (coalescing with ***?..**) '1.Poss' (also '1.A/S_A.IRR') [1]

Mk *ji-* / *j-* (Gerzenstein 1999: 142) • Ni *ji-* / *j-* (Fabre 2014: 80; Seelwische 2016: 379) • PCh **?i-* / **j-* / **?j-* [2] > Ijw *?i-* / *j-* / *?j-*; I'w *i-* / *j-*; Mj *?i-* / *j-* / *?j-* (Carol

2014b; Drayson 2009: 168; Gerzenstein 1983: 65; Carol 2018) • PW *ʔi- / *ji- [2] / *j- > 'Wk ʔi- / ja- / j- 'vocative prefix' (Alvarsson & Claesson 2014: 445) [1] This affix can also occur before applicatives to express a first-person singular participant in Maká (Messineo 2015: 136), Nivaçle (Fabre 2014: 194), and Chorote (with a subset of applicatives; cf. Carol 2014b).

[2] The allomorph PW *ji- > 'Wk ja- is found preceding uvular and glottal consonants. Obviously related to Proto-Guaicuruan *j- ~ *ej- ~ *ji- '1.Poss', *i- '1.S (stative and middle diathesis)' (Viegas Barros 2013a: 314).

Hunt 1915: 241; Viegas Barros 2013a: 314 (*j(i)-), 315 (*jV- '1.Sp')

***ji- (before C) / *j- (before V) / *ʔj- (coalescing with *ʔ...) '3.A/S_I (realis)'**

Mk (j)i- / j- (Gerzenstein 1994: 98; Messineo 2015: 132) • Ni ji- / j- (Fabre 2014: 145; Seelwische 2016: 375) • PCh *ʔi- / *j- / *ʔj- > Ijw ʔi- / ja- [1] / j- / ʔj-; I'w i- / j-; Mj ʔi- / j- / ʔj- (Carol 2014b; Drayson 2009: 168; Gerzenstein 1983: 75; Carol 2018) • PW *ʔi- / *ji- [1] / *hi- [2] / *j- / *ʔj- [3] > LB ʔi- / ji- / hi- / j- / ʔj-; 'Wk ʔi- / ja- / hi- / j- / ʔj- (Nercesian 2014: 241–242; Alvarsson & Claesson 2014: 449)

[1] The allomorph Ijw ja- is found before Ijw /k/, LB /q/ (< PM *q). Similarly, the allomorphs LB ji- / 'Wk ja- are found before uvular and glottal consonants. In the Rivadavia variety of Southeastern Wichí, verbs that took *ji- in Proto-Wichí may now take ja- (if the agent acts with low intensity) or ʔi- (if the agent acts with high intensity), according to Terraza (2009b: 135).

[2] The allomorph hi- is found before glottalized consonants in Wichí.

[3] As a result of Watkins' Law, the prefix in question is now found in persons other than the third person in Wichí and is now best analyzed as a verb class marker.

Obviously related to Proto-Guaicuruan *j(i)- '3.A/S_A' and *i- '1SG indirect object' (Viegas Barros 2013b, #779; see Viegas Barros 2013a: 315).

Viegas Barros 2013a: 315 (*j- ~ *i- (person prefix); *ji- (with applicatives))

***ʔ- (before C) / *ʔ- (before V) / *ʔ'- (coalescing with *ʔ...) '3.Poss'**

Mk ʔe- / ʔa- / ʔo- [1] / ʔ- / ʔ'- (Gerzenstein 1994: 147) • Ni ʔ- / ʔ- / ʔ'- (Fabre 2014: 80; Seelwische 2016: 161) • PCh *h²- / *hl- / *t'- > Ijw hi- / hl- / t'-; I'w hi- / hl- / t'-; Mj hi- / hl- / t'- (Carol 2014b; Drayson 2009: 168; Gerzenstein 1983: 66; Carol 2018) • PW *ʔ- / *ʔ- / *t'- > LB la- / ʔ- / <t'>- [2]; 'Wk la- / ʔ- / t'- (Nercesian 2014: 163–166; Alvarsson & Claesson 2014: 444–445)

[1] The allomorphs ʔe- / ʔa- / ʔo- in Maká are conditioned by vowel harmony.

[2] In Lower Bermejeño, the erstwhile allomorph t'- has been reanalyzed as part of the stems. Viegas Barros (2013a: 315) compares this prefix to Proto-Guaicuruan *(e)ʔ- '3.Poss'.

Hunt 1915: 241; Viegas Barros 2013a: 315 (*ʔ(V)-); Gutiérrez 2015b: 255

***ʔ-** (before C) / ***ʔ-** (before V) / ***ʔ-** (coalescing with *ʔ...) ‘2.A/S_A (realis)’

Mk *ʔe-* / *ʔa-* / *ʔo-* [1] / *ʔ-* (Gerzenstein 1994: 98; Messineo 2015: 132) • Ni *ʔ(a)-* / *ʔ-* / *tʔ-* (Fabre 2014: 145; Seelwische 2016: 161) • PCh **hʔ-* / **hl-* / **<hʔ>tʔ-* [2] > Ijw *hi-* / *hl-* / *hitʔ-*; Iʼw *hi-* / *hl-* / —; Mj *hi-* / *hl-* / *<hi>tʔ-* (Carol 2014b; Drayson 2009: 168; Gerzenstein 1983: 74; Carol 2018) • PW **ʔ-* / **ʔ-* / **<ʔ>tʔ-* [2] > LB *la-* / *ʔ-* [3]; ʼWk *la-* / *ʔ-* / *latʔ-* [4] (Nercesian 2014: 241; Alvarsson & Claesson 2014: 449)

[1] The allomorphs *ʔe-* / *ʔa-* / *ʔo-* in Maká are conditioned by vowel harmony.

[2] In Chorote and Wichí, one finds reflexes of **ʔ-* instead of **ʔ-* before ʔ-initial stems, possibly as a result of analogical extension (see Carol 2014b).

[3] In Lower Bermejeño, erstwhile ʔ-initial roots of transitive verbs extended the occurrence of a *jʔ-* initial allomorph (originally restricted to the third person) to the entire realis paradigm (Watkins’ Law), and forms such as PW **ʔt-ʔáχ* ‘you beat’ were replaced by the non-etymological LB *la-ʔj-aχ* (Nercesian 2014: 241), as opposed to ʼWk *lat-ʔáχ* (Claesson 2016: 116).

[4] In ʼWeenhayek, this prefix is unique in triggering vowel lengthening in the subsequent syllable.

Najlis 1984: 9, 15, 53 (**hl-*)

***ŋ-** (before C) / ***n-** (before V) / ***ʔn-** (coalescing with *ʔ...) ‘2.S_p/P (realis)’

Mk *<ʔe>n-* / *<ʔa>n-* / *<ʔo>n-* [1] (Gerzenstein 1994: 89; Messineo 2015: 132) • Ni *na-* / *n-* (Fabre 2014: 141–142, 148; Seelwische 2016: 177) • PCh **ŋ-* / **n-* / **ʔn-* > Ijw *ʔin-* / *<ʔi(n)>n-* / *<ʔi>ʔn-* [2]; Iʼw *in-* / *n-* / —; Mj *ʔin-* / *<ʔi>n-* / *<ʔi>ʔn-* [2] (Carol 2014b; Drayson 2009: 167, 169; Gerzenstein 1983: 77–78; Carol 2018)

[1] The element *ʔe-* / *ʔa-* / *ʔo-* in Maká (with allomorphy conditioned by vowel harmony) is likely etymologically related to the 2.A/S_A prefix.

[2] In Iyojwa’aja’ and Manjui, one finds both *ʔn-* and *ʔiʔn-* before ʔ-initial stems, and *ʔin-* before vowel-initial stems. The choice most likely depends on the position of the stress (*ʔn-* is found in roots where the stress falls on the second syllable, and *ʔiʔn-* is predominant in roots with initial stress), though there is some variation (and in Iyojwa’aja’ this variation is apparently of subdialectal nature). Iyo’awujwa’ preserves the more archaic pattern here.

***ŋ-** (before C) / ***n-** (before V) / ***ʔn-** (coalescing with *ʔ...) ‘indefinite possessor’

Mk *n-* (Gerzenstein 1994: 147, fn. 41) • Ni *na-* / *n-* (Fabre 2014: 83) • PCh **ŋ-* / **n-* / **ʔn-* > Ijw *ʔin-* / *<ʔi>n-* / *ʔn-* [1]; Iʼw *in-* ~ *ŋ-* / — / *n-* [2]; Mj *ʔin-* / *<ʔi>n-* / *ʔn-* [1] (Carol 2014a: 77, 2014b; Drayson 2009: 168; Gerzenstein 1983: 69; Carol 2018)

[1] In Iyojwa’aja’ and Manjui, one finds *ʔin-* before vowel-initial stems. No relevant data on Iyo’awujwa’ have been attested for this specific environment.

[2] With stems that are known to start with a glottal stop, the prefix in question is attested as *n-* in Gerzenstein (1983: 69), which must be a mistranscription for *ʔn-*.

Obviously related to Proto-Guaicuruan **en- ~ *n-* ‘indefinite possessor’ (Viegas Barros 2013b, #735).

****ɲ-* (before C) / **n-* (before V) / **ʔn-* (coalescing with **ʔ...*) ‘3.A/S.IRR’**

Mk *ne-* / *na-* / *no-* [1] / *n-* (Gerzenstein 1994: 85–98) • Ni *na-* / *n-* (Fabre 2014: 145) • PCh **ɲ-* / **n-* / **ʔn-* > Ijw *ʔin-* / <*ʔi(n)>n-* / <*ʔi>ʔn-* ~ *ʔn-* [2]; Iʔw (*e*)*n-* / <*i>n-* / —; Mj *ʔin-* / <*ʔi>n-* / — (Carol 2014a: 89, 2014b; Drayson 2009: 168; Gerzenstein 1983: 75–76; Carol 2018) • PW **ní...-aʔ* / **n-ʔ...-aʔ* / **ʔn-ʔ...-aʔ* > LB *ni...-a* / — / —; ʔWk *ní...-aʔ* / *n-ʔ...-aʔ* / *ʔn-ʔ...-aʔ* (Nercesian 2014: 316; Alvarsson & Claesson 2014: 458, fn. 36)

[1] The allomorphs *ne-* / *na-* / *no-* in Maká are conditioned by vowel harmony.

[2] In Iyojwa’aja’, the third-person irrealis prefix usually coalesces with the stem-initial glottal stop as *ʔiʔn-*, but in some verbs *ʔn-* is found instead: *ka ʔnaháne* ‘so that s/he knows’. The sequence *ʔi-* is also often omitted after particles that end in a low vowel.

****ni-* / **n-* (next to a vowel) ‘cislocative’**

Mk *ni-* / *-n-* (Gerzenstein 1994: 94) • Ni *ni-* / *n-* (Fabre 2014: 191–192) • PCh **n-* in **<n>ám* ‘to come here’ (cf. [*j*]*ám* ‘to go away.3IRR’) > Ijw *náʔm*; Mj *nám* (Carol 2014b,a, 2018) • PW **n-* in **<n>ám* ‘to come here’ > LB *nom*; Vej *nám*; ʔWk *nám* (Nercesian 2014: 145; Braunstein 2009: 53; Viñas Urquiza 1974: 68; Claesson 2016: 252)

Viegas Barros (2013a: 317) compares this to Proto-Guaicuruan **n-* ‘middle diathesis’ (Viegas Barros 2013b, #774).

Viegas Barros 2013a: 317 (**n-*) ‘cislocative, middle voice’

****ni-* / **n-* (next to a vowel) ‘middle voice’**

Ni *n-* [1] (Fabre 2014: 192) • (?) PCh **n...-* [2] > Ijw *-ní-* ‘reflexive’ (Carol 2014b) • PW **ni-* / **n-* > LB *ni-* / —; ʔWk *ni-* / *n-* (Terraza 2009b: 192–194; Alvarsson & Claesson 2014: 449)

[1] Campbell et al. (2020: 297) state that this prefix only occurs before vowel-initial stems. Fabre (2014) considers it to be a metaphorical extension of the cislocative prefix.

[2] We can think of no convincing way of accounting for an instance of [i] in a stressed syllable after a non-palatalized consonant in Iyojwa’aja’, which in addition fails to trigger palatalization of following segments (even coronal ones). We have considered the possibility of positing a stressed syllabic **ɲ* for Proto-Chorote, but this is problematic because the reflexive prefix surfaces as *-ní-* even after vowels in Iyojwa’aja’.

Viegas Barros (2013a: 317) compares this to Proto-Guaicuruan **n-* ‘middle diathesis’ (Viegas Barros 2013b, #774).

Viegas Barros 2013a: 317 (**n-*) ‘cislocative, middle voice’

***ni- / *n- (next to a vowel) ‘3.S_N (realis)’ [1]**

Mk *ni-* / *-n-* (Gerzenstein 1994: 89) • Ni *ni-* / *n-* (Fabre 2014: 142) • PCh **ñ-* / **n-* / **ʔn-* > Ijw *?in-* / *n-* / **n-*; Iʼw *in-* / *-* / *-*; Mj *?in-* / *-* / **n-* (Carol 2014b; Gerzenstein 1983: 79; Carol 2018) • see PW **ni-* / **n-* ‘middle voice’

[1] This is probably the same prefix as ‘cislocative’ and/or ‘middle voice’, which has become obligatory with some verbs and is no longer analyzable as a direction or voice marker.

***qats= (before C) / *qats= (before V) / *qats’= (coalescing with *ʔ..) ‘1PL.Sp/P’ or ‘1PL.Poss’**

Ni *kas-* ~ *katsi-* / *kats-* / *kats’-* ‘1PL.Poss’ (Fabre 2014: 82) • PCh **qas=s²-* / **qas=s-* / **qas=ts’-* ‘1PL.Sp/P’ > Ijw *kas=∅-* / *kas=...-s-* / *kas=...-ts’-*; Iʼw *kasi-* / *kas-* / *kats-*; Mj *ka-fi-* / *ka-si-* / *ka-se-* [1] / *kas-s-* / *kas-ts’-* (Carol 2014a: 89, 2014b; Drayson 2009: 167, 169; Gerzenstein 1983: 79–80; Carol 2018)

[1] The allomorph *kasi-* ~ *kase-* appears in Manjui before a non-palatalized *k* < PCh **q*.

Obviously related to Proto-Guaicuruan **qoʔd-* / **qo-* ‘1PL.Poss’, **qod-* / **qo-* ‘1PL.Sp/P’ (Viegas Barros 2013b, #732, #764).

Viegas Barros 2013a: 315 (**kats’-* ‘1+2.Poss’, **kats-* ‘1+2.Sp’)

***t- (before C) / *t- (before V) / *t’- (coalescing with *ʔ..) ‘3.S_T’**

Mk *te-* / *ta-* / *to-* [1] / *t-* / *t’-* (Gerzenstein 1994: 85) • Ni *t(a)-* / *t-* / *t’-* [2] (Fabre 2014: 135) • PCh **t²-* / **t-* / **t’-* > Ijw *ti-* / *ta-* [3] / *t-* / *t’-*; Iʼw *ti-* ~ *te-* / *t-*; Mj *ti-* / *t-* / *t’-* (Carol 2014a: 86–86, 91, 98, 2014b; Gerzenstein 1983: 75; Carol 2018) • PW **ta-* / *-t(á)-* [4] > LB *ta-* / *-t(a)-*; Vej *ta-* / *-t(a)-*; ʼWk *ta-* / *-t(á)-* (Nercesian 2014: 120–121, 237–240; Gutiérrez & Osornio 2015: 14; Alvarsson & Claesson 2014: 448)

[1] The allomorphs *te-* / *ta-* / *to-* in Maká are conditioned by vowel harmony.

[2] In Nivaçle, the morpheme in question is also found in the second-person form (between the person prefix and the root) and is now best analyzed as a verb class marker, though it is absent from the first-person form. The allomorph *ta-* in Nivaçle is only found before *tf*-initial stems.

[3] The allomorph *ta-* appears in Iyojwa’aja’ before /k/ < PM **q*.

[4] As a result of Watkins’ Law, the prefix in question is now found in persons other than the third person in Wichí and is now best analyzed as a verb class marker.

***tsi- (before C) / *ts- (before V) / *ts’- (coalescing with *ʔ..) ‘1.Sp/P (realis)’**

Mk *ts(ʔ)i-* / *ts(ʔ)-* (Gerzenstein 1994: 89; Messineo 2015: 132) • Ni *tsi-* / *ts-* / *ts’-* (Fabre 2014: 141–142, 148; Seelwische 2016: 300) • PCh **s²-* / **s-* / **ts’-* > Ijw *si-* / *s-* / *ts’-*; Iʼw *si-* ~ *tsi-* / *s-* / *ts-*; Mj *fi-* / *si-* ~ *se-* [1] / *s-* / *s’-* (Carol 2014a: 79, fn. 7, 2014b; Drayson 2009: 167, 169; Gerzenstein 1983: 76–77; Carol 2018)

[1] The allomorph *si-* ~ *se-* appears in Manjui before a non-palatalized *k*.

10 Dictionary

Viegas Barros (2013a: 315) compares this prefix to Proto-Guaicuruan **i-d-* '1.Sp/P' (Viegas Barros 2013b, #763).

Viegas Barros 2013a: 315 (**ts'(i)-*)

***wa-** (before C) / ***w-** (before V) '3.S_{WA}'

Mk *we-* (Tacconi 2015: 85) • Ni *βa-* / *β-* (Campbell et al. 2020: 236–238)

***xi-** '1+2 (realis)'

Mk *xi-* / *x-* '1+2.A/S_A/P (realis)'; *xi-n(i)-* / *xi-j(i)-* '1+2.Sp (realis)' (Gerzenstein 1994: 86–91, 100–102) • Ni *fi<n(a)>-* / *fi<'n>-* '1+2.P/Sp (realis)' (Fabre 2014: 148)

Viegas Barros 2002: 142 (**xina-* '1+2')

***xɬ-** (before C) / ***xt-** (before V) / ***xt'** (coalescing with *ʔ...) '1+2.A/S_A (realis)'

Mk *xite-* / *xita-* / *xito-* / *xit-* / *xit'* (Gerzenstein 1994: 85–86, 93, 96) • Ni *fta-* / *ft-* / *ft'* (ShL *sta-* / *st-* / *st'*) (Fabre 2014: 145)

[1] The allomorphs *xite-* / *xita-* / *xito-* in Maká are conditioned by vowel harmony.

Viegas Barros 2002: 142 (**xita-* '1+2.S')

***ʔa-** (before C) / ***∅-** (before V or *ʔ) '2.Poss' (also '2.A/S_A.IRR') [1]

Mk *e-* / *a-* / *o-* / *∅-* (Gerzenstein 1994: 147) • Ni *ʔa-* / *∅-* (Fabre 2014: 80; Seelwische 2016: 35) • PCh **ʔa-* / **∅-* > Ijw *ʔa-* / *∅-*; I'w *a-* / *∅-*; Mj *ʔa-* / *∅-* (Carol 2014a: 85, 100, 2014b; Drayson 2009: 168; Gerzenstein 1983: 65–66; Carol 2018) • PW **a-* / **ha-* [2] / **∅-* > LB/Wk *ʔa-* / *ha-* / *∅-* (Nercesian 2014: 163–166; Alvarsson & Claesson 2014: 444–445)

[1] This affix can also occur before applicatives to express a second-person participant in Maká (Messineo 2015: 136), Nivačle (Fabre 2014: 194), Chorote (Carol 2014b), and Wichí (variants *-ʔam-* and *-ʔa-*) (Nercesian 2014: 223; Alvarsson & Claesson 2014: 433, 449).

[2] The allomorph *ha-* is found before glottalized consonants in Wichí.

Viegas Barros (2013a: 315) compares this prefix to Proto-Guaicuruan **ʔa-* '2.A/S_A'.

Hunt 1915: 241; Najlis 1984: 9, 17, 18 (**a-*); Viegas Barros 2013a: 315 (**ʔa-* ~ **∅-* '2.IRR')

***ʔin-** '1+2.Sp/P' or '1+2.Poss'

Mk *in-* '1+2.Poss' (Messineo 2015: 137) • PW **xn<á>-* '1+2.Sp/P', **xn-ám-el^h* 'we (inclusive)' > LB *n-am-it* 'we (hortative)' [1]; Vej *'n-am-el* [2]; Wk *ʔin<á>-* '1+2.Sp/P; hortative', *ʔin-ám-el* 'we (inclusive)' (Nercesian 2014: 120–121, 237–240; Gutiérrez & Osornio 2015: 26; Alvarsson & Claesson 2014: 437, 445, 447)

[1] Southeastern Wichí has irregularly raised the vowel of the plural suffix. Lower Bermejeño Wichí does not preserve the pronoun in question in non-hortative usages, having replaced **xn-ám-el^h* with *to-łam-it*; the Rivadavia subdialect shows a more conservative picture, where *n-am-it* varies with *to-łam-it* (Terraza 2009b: 100, 116).

[2] The Vejoz reflex is attested with a plain nasal, that is, as *n-am-el* in Viñas Urquiza (1974: 67), which must be a mistranscription.

10.6 Inflectional suffixes

*-a ‘punctual, momentary’

Ni *-a* (Fabre 2014: 159–161) • PCh **-a?* > Ijw/I’w/Mj *-a?* (Carol 2014b; own field notes; Carol 2018)

*-áj^h / *-j^h ‘PL’ → see examples in the main corpus (§10.1)

*-él / *-l ‘PL’ → see examples in the main corpus (§10.1)

Viegas Barros (2013a: 316) compares this suffix to Proto-Guaicuruan **-ʔaʔl* ‘distributive plural’ (Viegas Barros 2013b, #749).

Viegas Barros 2013a: 316 (**(V)l*)

*-eʔl ‘pronominal plural’

Mk *j-e-khewe-l-iʔl* ‘we (exclusive)’, *∅-e-khewe-l-iʔl* ‘you (plural)’ [1] (Gerzenstein 1999: 143, 398) • Ni *-eʔl / -el* (Campbell et al. 2020: 69, 149–150, 262–263) • PCh **-el* [2] > I’w *-el / -Vl / -<w>el* [3] ‘2PL’; Mj *-el / -it / -Vl / -<w>el* [2] (Gerzenstein 1983: 105; Carol 2018) • PW **x_n-ám-el^h* ‘we (inclusive)’; **ʔō-ʔám-el^h / *j-ám-el^h* ‘we (exclusive)’; **∅-ʔám-el^h* ‘you (plural)’; **ʔ-ám-el^h* ‘they’ [4] > LB *n-am-it* ‘we (hortative)’ (*to-ʔ-am-it* ‘we (exclusive)’); *ʔ-ʔ-am-it*; *∅-am-it*; *ʔ-am-it* [5]; Vej *ʔ-n-am-el* [6]; *ʔo-ʔ-am-el*; *∅-ʔ-am-el*; *ʔ-am-el*; *ʔWk ʔin-ám-el*; *ʔō-ʔám-el* (“formal sociolect”) / *j-ám-el* (“informal sociolect”); *∅-ʔám-el*; *ʔ-ám-el* (Nercesian 2014: 335; Viñas Urquiza 1974: 50, 65, 67, 69; Gutiérrez & Osornio 2015: 26; Alvarsson & Claesson 2014: 437)

[1] The preglottalized coda in Maká is attested in the New Testament (e.g. John 7:34, 2 Corinthians 13:6).

[2] In Chorote, the suffix in question expresses extended plural of possessors and clause participants, except in the third person.

[3] The allomorph *-Vl* (*-Vl*) in Chorote results from translaryngeal harmony. The allomorph *-weʔ* (*-wel*) occurs after vowels. The allomorph *-it* in Manjui occurs after *k* and *j*.

[4] Wichí irregularly reflects PM **ʔ* as **l^h* (this innovation may in fact be restricted to Vejoz and Guisnay, given that *ʔ*Weenhayek and Southeastern Wichí reflect PW **l^h* and **ʔ* as *ʔ* anyway).

[5] Southeastern Wichí has irregularly raised the vowel of the suffix.

[6] The Vejoz reflex of the first-person inclusive pronoun is attested with a plain nasal, that is, as *n-am-el* in Viñas Urquiza (1974: 67), which must be a mistranscription.

10 Dictionary

*-*its* / *-*ts* ‘PL’ → see examples in the main corpus (§10.1)

Viegas Barros (2013a: 316) compares this suffix to Proto-Guaicuruan *-*Vdi* / *-*di* ‘PL’ (Viegas Barros 2013b, #745).

Viegas Barros 2013a: 316 (*-(V)ts)

*-*xä*’*n*(*e*?) ‘downwards; verbal plural’

Ni -*fa*’*ne*? / -*xa*’*ne*? (after $V_{[+back]}(C_{[-coronal]})$) (Fabre 2014: 173–174, 208–210) • PCh *-*he*’*n*(*e*?) > Ijw -*he*’*n*; I’w -*hen*, -’*ne*?; Mj -*he*’*ne*? (Carol 2014a: 78, 2014b; 2018) • PW *-*he*’*n* > LB -*hen*; ’Wk -*he*’*n* (Nercesian 2014: 228–232; Claesson 2016: 148; Alvarsson & Claesson 2014: 449)

Najlis 1984: 42 (*-*hne*); Viegas Barros 2002: 142 (*-*xe*(*ne*))

-?e*? ‘LOC’

Mk -*?i*? [1] (Gerzenstein 1994: 123–124) • Ni -*?e*? ‘proximal locative’ (Fabre 2014: 157–159) • PCh *-*?e*? > Ijw/I’w/Mj -*?e*? ‘punctual locative’ (Carol 2014b; own field data; Carol 2018) • (?) PW *-*e* [2] > LB -*e* ‘distal locative’; ’Wk -*e*? (Nercesian 2014: 255; Alvarsson & Claesson 2014: 460)

[1] This applicative is actually represented as -*i* in Gerzenstein (1994). We assume this is a mistranscription for -*?i*?, as in the Wycliffe Bible translations one finds forms such as *i*’*ni*? (from *in* + -*?i*? ‘s/he, it is in’).

[2] We are unsure whether the Wichí applicative *-*e* is related to PM *-*?e*?

10.7 MN only

In this section, we list the cognate sets with reflexes only in Maká and Nivaçle. Due to the absence of the diagnostic reflexes in Chorote and ’Weenhayek, it is often impossible to reconstruct the prosodic properties of the etyma listed in this section. For this reason, the reconstructions in this section are strictly segmental (for example, PM **sálál* should be read as PM **sálál* ~ **sálál* ~ **sálál*), unless specified otherwise.

*-*a*’*t* ~ *-*ä*’*t* ‘to burn’ (MN)

Mk [*n*]e’*t-xu*? [1] (Gerzenstein 1999: 151) • Ni [*ji*]’*n*>*a*’*t* ‘to burn’; *t-at-xen* ‘to burn a field’; -*at-etf*, -*at-xe-s* ‘burnt field’ (Seelwische 2016: 42, 177, 250)

[1] The preglottalized coda in the Maká reflex is attested in the New Testament (e.g. Luke 1:10).

Viegas Barros (2013a: 304) compares this root to Proto-Guaicuruan *-*a*(’)*leg* ‘to burn’ (Viegas Barros 2013b, #28).

Viegas Barros 2013a: 304 (*-*at*)

***-ata(°)x ~ *-ä- [1] ‘food’ (MN)**

Mk *-ete(°)x* [1], *-etex-its* (Gerzenstein 1999: 159) • Ni *-ataf*, *-ata-k* (Seelwische 2016: 50)

[1] The uncertainty regarding the coda is due to the fact that the form is not attested in our sources on Maká that distinguish between plain and preglottalized codas. In PM, the reconstruction of a preglottalized coda is possible only if the root has initial accent (in this case the deglottalization in Nivaçle would be regular).

***ʔáφínaʔχ, *ʔáφínha-ts ‘black howler’ (MN)**

Mk *afínaʔχ*, *afínhe-ts* (Gerzenstein 1999: 113; UNICEF & Tekombo’e ha Tembi-kuaa Motenondeha 2022: 2) • Ni *ʔáφinax*, *ʔáφinxa-s* (Seelwische 2016: 210)

***[j]áφti(°)ʔ [1] ‘to spin a thread’ [2] (MN)**

Mk *[j]áφti(°)ʔ* [1] (Gerzenstein 1999: 113) • Ni *[j]áφtiʔ* (Seelwische 2016: 107)

[1] The uncertainty regarding the coda is due to the fact that the form is not attested in our sources on Maká that distinguish between plain and preglottalized codas. In PM, the reconstruction of a preglottalized coda is possible only if the root has initial accent (in this case the deglottalization in Nivaçle would be regular).

[2] This verb is likely derived from PM **tiʔi* ‘to sew’.

***[j]átsi(°)j [1] ‘to spill’ (MN)**

Mk *[j]átsij-xuʔ* (Gerzenstein 1999: 134) • Ni *[j]átsij* (Campbell et al. 2020: 236; Seelwische 2016: 154)

[1] In PM, the reconstruction of a preglottalized coda is possible only if the root has initial accent (in this case the deglottalization in Nivaçle would be regular).

Possibly related to Proto-Guaicuruan **-ʔotsi(-tʰ-iʔni)* ‘to fall’ (Viegas Barros 2013b, #699; cf. Viegas Barros 2013a: 307).

Viegas Barros 2013a: 307 (**-ʔtsi*)

***φánhaʔ ~ *φánhaʔ (*-jʰ) ‘locust’ (MN)**

Mk *<e>fenheʔ(-j)* [1] (Gerzenstein 1999: 141) • Ni *φanxa(-j)* (Seelwische 2016: 130)

[1] The identity of the element *e-* in Maká is unclear.

***φaxi(°)j ~ *φäxi(°)j [1] ‘green ameiva (*Ameiva ameiva*)’ (MN)**

Mk *fexij(-its)* (Gerzenstein 1999: 174) • Ni *φafij(-k)* (Campbell et al. 2020: 468; Seelwische 2016: 131)

[1] In PM, the reconstruction of a preglottalized coda is possible only if the root has initial accent (in this case the deglottalization in Nivaçle would be regular).

***φinâk, *φinhâ-jʰ ‘tobacco’ (MN) [1]**

Mk *finak*, *finha-j* (Gerzenstein 1999: 176; Braunstein 1987: 85) • Ni *φinâk*, *φinxâ-j* (Seelwische 2016: 133)

10 Dictionary

[1] This noun could be derived from a verb meaning ‘to suck, to kiss’ (cf. Ni [ji]φin), but the hypothetical verb **[ji]φin* is not reconstructible. Campbell & Grondona (2007: 16) suggest that the Maká and Nivaçle words could have been diffused from one language to another rather than inherited, though there appears to be no valid reason to believe so.

Campbell & Grondona 2007: 16 (“diffused?”), 21

*-φ*i*(?) ‘foot’ (MN)

Mk -*f*^h*i*ʔ (-*je*j) [1] (Gerzenstein 1999: 183) • Ni -*p*^h*i*<*k*^h*o*> ‘heel’ [2] (Seelwische 2016: 224)

[1] The Maká plural is mistranscribed as -*f*^h*i*-*je*j in Gerzenstein (1999: 183); the expected form -*f*^h*i*-*je*j is found in the Maká version of the New Testament (e.g. Luke 24:40).

[2] Nivaçle -*k*^h*o* is a fossilized reflex of PM *-*k*^h*o*, *-*k*^h*o*-*l* ‘bottom’.

Rejected: Najlis (1984: 55) claims that Ni -*p*^h*i**k*^h*o* is a cognate of the reflexes of PM *-*p*^h*á**k*^h*o* (*-*l*) ‘heel’. Only the element *-*k*^h*o* could actually be cognate across Mataguayan in this case.

*(-)φ*ok* (*-its) ‘arrow’ (MN)

Mk (-)*f*^h*ok* (-its) ‘blunt-pointed arrow’ (Gerzenstein 1999: 184) • Ni (-)*p*^h*ok* (-is) (Seelwische 2016: 225)

Rejected: Najlis (1984: 38) compares the Nivaçle reflex with a Wichí term for ‘earthenware field bottle’ (PW *-*p*^h*ok*^w) and reconstructs PM *-*p*^h*ok*^w. This is implausible for semantic reasons.

**him* (*-its) ‘coati’ (MN)

Mk *him* (-its) (Gerzenstein 1999: 188) • Ni *xim* (-is) (Seelwische 2016: 148)
Viegas Barros 2002: 143 (**χim*)

**jinqá*-(*ju*)^h*k*, **jinqá*-*ku*-*j*^h (tree); **jinqá*^h-*p*, **jinqá*-*p*-its (season) ‘white algarrobo (*Prosopis alba*)’ (MN)

Mk <*in*>*inqa*-^h*k* (-*wi*); <*in*>*inqa*-^h*p* (-its) ‘summer, year’ [1] (Gerzenstein 1999: 202; Tekombo’e ha Tembikuaa Motenondeha 2020: 23–25) • Ni *jinká*^h*p*, *jinká*-*p*-is ‘algarrobo season, year’ (Seelwische 2016: 382)

[1] The coda is documented as plain (without preglottalization) in the New Testament (e.g. in Acts 18:11), which must be a mistranscription.

Rejected: Campbell & Grondona (2007: 16, 20) and Viegas Barros (2013a: 311) include reflexes of PCh **nałqá*-*p* ~ *-*á*- (*-is) ‘year’ > Ijw/I^w *nahkáp* (-is); Mj *nalkáp* (-is) (Drayson 2009: 140; Gerzenstein 1983: 150; Carol 2018), but this must be derived from an unrelated root with the same suffix. Campbell & Grondona (2007) also include reflexes of PW **neqk*^h*ám* ‘year’ > LB *nektfom*; Vej *nektfam*; ^wWk *nekk*^h*á*? (-*lis* ~ *nekk*^h*ám*-is) (Braunstein 2009: 52; Viñas Urquiza 1974: 68; Claesson 2016: 262), which is obviously a spurious match.

Viegas Barros (2013a: 311) compares this root to Proto-Guaicuruan **inaqa* ‘algarrobo tree’ (Viegas Barros 2013b, #288), **inaqá* ‘year’ (Viegas Barros 2013b, #289).

Campbell & Grondona 2007: 16, 20; Viegas Barros 2013a: 311 (**in(a)q*^h*-p*) ‘year’

***(-)jipku? (*-l) ‘hunger’ (MN)**

Mk (-)jipku? (-l) (Gerzenstein 1999: 399) • Ni jipku? / -jipku (-k) (Seelwische 2016: 382)

***jiʔixátaχ, *jiʔixáta-ts ‘ocelot’ (MN)**

Mk iʔihataχ, iʔihate-ts (Gerzenstein 1999: 226) • Ni jixátax, jixáta-s (Seelwische 2016: 382)

Campbell & Grondona 2007: 20

***[ji]kálaʔʔ ‘to fry’ (MN)**

Mk [j]<a>kaleʔʔ [1] (Gerzenstein 1999: 114) • Ni [ji]kakláʔʔ / -kakláʔʔ [2] (Seelwische 2016: 56)

[1] The presence of a preglottalized coda in Maká is inferred based on the Nivaçle cognate; the verb is not attested in our sources that distinguish between plain and preglottalized codas.

[2] In Nivaçle, the vowels *a* and *ã* were historically metathesized, but not before the palatalization of velars.

***kómi? ‘Chilean flamingo (*Phoenicopterus chilensis*)’ (MN)**

Mk kómi? (-l) [1] (Gerzenstein 1999: 231) • Ni komi (-s) (Seelwische 2016: 71)

[1] The Maká reflex is attested as *qomi* in Braunstein (1987: 55), suggesting the reconstruction **qomi* instead.

***-ku(?) ‘cheek’ (MN)**

Mk -ku-ki? (-j) (Gerzenstein 1999: 233) • Ni -ku? (-l) (Seelwische 2016: 341)

***[wa]kumaʔχ ‘to run’ (MN)**

Mk [we]kumaʔχ, CAUS [ji]kumk-et (Gerzenstein 1999: 233) • Ni [βa]kumaʔx (Seelwische 2016: 79)

[1] The preglottalized coda in the Maká reflex is attested in the New Testament (e.g. Luke 19:4).

***[t]kʔan ~ *[t]kʔän ‘to obey’ (MN)**

Mk [te]kʔen ‘to believe, to respect’ (Gerzenstein 1999: 235) • Ni [t(a)]tʔan (Seelwische 2016: 248)

***[t]kʔij ‘to spit’ (MN)**

Mk [te]kʔij (Gerzenstein 1999: 236) • Ni [t]<ʔa>tʔij ~ [t]<ʔa>tʔi (Seelwische 2016: 282)

***-kʔunhate? ‘tooth’; *kʔunhate-nha? (*-j^b) ‘pacu fish’ [1] (MN)**

Mk -kʔunheti? (-j); <i>kʔunheti-nhe? (-j) (Gerzenstein 1999: 196) • Ni kʔunxate<nxa> (-j) ‘pacu fish’ (Seelwische 2016: 237)

10 Dictionary

[1] It is tempting to analyze this root as a *nomen instrumenti* of PM **-kun* ~ **-kún* ‘to eat (intr.)’, but the discrepancy in the glottalization of the root-initial consonant would be problematic for such analysis.

Campbell & Grondona 2007: 17 (‘pacu fish’)

***lama(h) ~ *läma(h) (*-m) ‘to be smooth’ (MN)**

Mk *le:me*, *leme-m* (Gerzenstein 1999: 241) • Ni *klama*<*m*> [1] (Seelwische 2016: 115)

[1] Nivaçle appears to have generalized the erstwhile plural form.

Viegas Barros (2013a: 307) compares the root with Proto-Guaicuruan **-ʔa(ʔ)le(ʔ)m* ‘to be bald’, which seems semantically far-fetched.

Viegas Barros 2013a: 307 (**leme(m)*); Gutiérrez 2015b: 253

***lasa(h) ~ *läsa(h) ~ *lasaʔ ~ *läsaʔ ‘to be thin’ (MN)**

Mk <*e*>*lese-j* (Gerzenstein 1999: 145) • Ni *klasa-tʃe* (Seelwische 2016: 116)

***låttsiki-juʔk, *låttsiki-ku-jʰ ‘willow’ (MN)**

Mk *lattsiki-juʔk* [1] (Gerzenstein 1999: 240) • Ni *klåttsiki-juk*, *klåttsiki-ku-j* [2] (Seelwische 2016: 120)

[1] The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 7).

[2] The failure of PM **k* to palatalize in Nivaçle is unexpected.

Campbell & Grondona 2007: 16

***-ʰiʔwteʔ ‘heart’ (MN)**

Mk *-ʰitiʔ* (-*j* ~ -*l*) (Gerzenstein 1999: 254) • Ni *-ʰiʔβte* (Fabre 2014: 303; Campbell et al. 2020: 119)

Rejected: Najlis (1984: 38, 42) compares the Nivaçle reflex with reflexes of PCh **-ʔot* ‘chest’ and PW **-tʰókʷe* ‘chest’, but this is absolutely impossible for phonological reasons.

***maʔlaʔl ~ *mä- ~ *ʔläʔl ‘agile’ (MN)**

Mk *meʔleʔl* ‘to move (intr.)’ [1], CAUS *-meʔleʔl-hit* ‘to move’ (Gerzenstein 1999: 260) • Ni *maklaʔk* (Seelwische 2016: 172)

[1] The intransitive verb is documented in the New Testament (Hebrews 12:27; Matthew 28:2; Revelations 6:12; Revelations 8:4; Revelations 16:8). It could be etymologically identical to *melel* (-*its*) ‘deer’ (Gerzenstein 1999: 260), which is, however, attested with no glottalization in Braunstein (1987: 49).

***(-)nawan ~ *-ä- ‘hook’ (MN)**

Mk *newen* (-*its*) (Gerzenstein 1999: 273) • Ni *-naβan* (-*ij*) (Seelwische 2016: 183)

***nijátsek, *nijátshē-j^h ‘fermented drink’ (MN)**

Mk *nijatsik* [1], *nijatshi-j* (Gerzenstein 1999: 224; Unu’uneiki Patricia 2011: 18)

• Ni (-)*nijátsetf*, (-)*nijátshē-j* (Seelwische 2016: 198)

[1] The singular form is attested both as *nijatsik* and *nijatshik* in Maká by Gerzenstein (1999: 224), of which only the former is etymological.

***[n]xt’o? ‘to wake up’, CAUS [n]xt’o-tshan [1]**

Mk —, [n]<i>xt’o-tshen (Gerzenstein 1999: 222) • Ni [n(i)]xat’o?,

[n(i)]xat’o-tshen (Campbell et al. 2020: 114; Seelwische 2016)

***-pas ~ *-päs ‘hand / finger’ (MN)**

Mk (Lengua doculect) <hipès> ‘hand’, <hipecé> ‘fingers’ (Demersay 1860: 456)

• Ni *-pas-tfe* (-j) ‘finger’ (Seelwische 2016: 218; Campbell et al. 2020: 129)

***qapa(°)p ~ *-ä- [1], *qapap-its ~ *-ä- ‘dwarf’ (MN)**

Mk *qep<ep>e(°)p* [1], *qep<ep>ep-its* (Gerzenstein 1999: 308) • Ni *kapap* (-is) ‘dwarf dog’ (Seelwische 2016: 61)

[1] The uncertainty regarding the coda is due to the fact that the form is not attested in our sources on Maká that distinguish between plain and preglottalized codas. In PM, the reconstruction of a preglottalized coda is possible only if the root has initial accent (in this case the deglottalization in Nivaçle would be regular).

[2] The extra element *-ep-* in Maká appears to be an instance of partial reduplication.

Viegas Barros (2013a: 308) notes the similarity with Proto-Pilagá–Toba **qapí* ‘small’, which could be spurious.

Viegas Barros 2013a: 308 (**qapap*)

***-q’áxtáχ ‘palate’ (MN) [1]**

Mk *-q’ataχ*, *-q’ate-ts* (Gerzenstein 1999: 319) • Ni *-k’áxtáχ* (-is) (Seelwische 2016: 89)

[1] The root could be related to PM *-q’á(°)X₁₂* ‘tongue’ (ChW), but the vowels do not match.

Viegas Barros (2013a: 309) notes the similarity with Proto-Guaicuruan **-got’e* ‘palate’ (absent from Viegas Barros 2013b).

Viegas Barros 2013a: 309 (**-q’átáχ*)

***-sa’x ~ *-sä’x ‘leaf’ (MN)**

Mk 3 *te-se’x* [1], *te-sex-ets* (Gerzenstein 1999: 251) • Ni *-sa’f*, *-saf-aj* ‘leaf, hair’ (Seelwische 2016: 63)

[1] The presence of a preglottalized coda in Maká is inferred based on the Nivaçle cognate; the singular form is not attested in our sources that distinguish between plain and preglottalized codas. The plural form is attested in the New Testament (e.g. Mark 11:13), but it is not revealing. Viegas Barros 2002: 143 (**sex*)

***sámtoʔ ‘foreigner’ (MN)**

Mk *sontoʔ* ‘non-indigenous person’ (Gerzenstein 1999: 327) • Ni *samto* ‘Argentine criollo’ (Seelwische 2016: 230)

***samto-ʔk ‘bamboo (*Guadua angustifolia*)’ (MN)**

Mk *sontok* [1] (Gerzenstein 1999: 327; Braunstein 1987: 82) • Ni *samtoʔk* (Seelwische 2016: 230)

[1] The loss of preglottalization in the coda in Maká is unexpected.

***sálá(ʔ)l [1], *sálál-its ‘middle-sized cicada’ (MN) [2]**

Mk *sala(ʔ)l* [1], *salal-its* (Gerzenstein 1999: 323) • Ni *sákl̄<ákl̄>ák (-is)* [3] (Seelwische 2016: 235)

[1] The uncertainty regarding the coda is due to the fact that the form is not attested in our sources on Maká that distinguish between plain and preglottalized codas. In PM, the reconstruction of a preglottalized coda is possible only if the root has initial accent (in this case the deglottalization in Nivaçle would be regular).

[2] Iyojwa’aja’ *s’áhlá*, Iyo’awujwa’ *s’áhlála*, *s’áhlála-l* ~ *s’áhlál-is* ~ *s’éhlála-as* ‘cicada’ (Carol 2014a: 100; Gerzenstein 1983: 159) cannot be cognate for phonological reasons; it must be a borrowing instead.

[3] The extra element *-ákl̄-* in Nivaçle appears to be an instance of partial reduplication.

***sijá(ʔ)χ [1], *sijáχ-its ‘fish sp.’ (MN)**

Mk *sija(ʔ)χ* [1], *sijaχ-its* ‘fish sp. (small, unedible, with a black stripe)’ (Gerzenstein 1999: 327) • Ni *sijáχ (-is)* (Seelwische 2016: 234)

[1] The uncertainty regarding the coda is due to the fact that the form is not attested in our sources on Maká that distinguish between plain and preglottalized codas. In PM, the reconstruction of a preglottalized coda is possible only if the root has initial accent (in this case the deglottalization in Nivaçle would be regular).

***(-)tak’o(h) ~ *(-)täk’o(h) ‘kind of utensil’ (MN)**

Mk *tok’o (-l)* ‘plate, bucket, jar’ (Gerzenstein 1999: 341) • Ni *-tak’o-tax*, *-tak’o-txa-s* ‘piece of knife’ (Seelwische 2016: 247)

***tana(h) ~ *täna(h) ‘standing, vertical’ (MN)**

Mk *te:ne*, *tene-m* (Gerzenstein 1999: 333) • Ni *tana* (Seelwische 2016: 251)

***teχ (*-its) ‘parrot sp.’ (MN)**

Mk *taχ (-its)* ‘nanday parakeet (*Aratinga nenday*)’ (Gerzenstein 1999: 333; Braunstein 1987: 60) • Ni *tex (-is)* ‘scaly-headed parrot (*Pionus maximiliani*)’ (Campbell et al. 2020: 96, 506)

***tiʔj** ‘to weave’ (MN)

Mk *tij* / *-tij* (Gerzenstein 1999: 336) • Ni *tiʔj* ‘to weave; to model (with clay)’ (Seelwische 2016: 269)

***(-)tiʔnâx (-its)** ‘object made of leather’ [1] (MN)

Mk *tiʔnax* (-its) [2] ‘leather bag for travel’ (formerly ‘traditional bag made of rhea skin’) (Gerzenstein 1999: 338) • Ni *tiʔnâx*, *tinâx-is* ‘leather strap, lash’ (Gutiérrez 2015b: 57, fn. 22; Seelwische 2016: 269; Campbell et al. 2020: 95)

[1] This noun is likely derived from PM *-ʔâx* (*-its) ‘skin, bark’ by means of an absolutizing prefix.

[2] The preglottalization in the stem-medial nasal in Maká is attested in the New Testament (e.g. Luke 10:4).

***tuχ-APPL** ‘to burn (intr.)’ (MN)

Mk *tuχ-xeʔm* ~ *tux-xeʔm* [1], *tuχ-eʔ* (Gerzenstein 1999: 344) • Ni *tux-aʔm*, *tux-ej* (Seelwische 2016: 280)

[1] The root-final consonant is attested as *χ* in Gerzenstein (1999) and as *x* in the New Testament (e.g. Ephesians 6:16).

Possibly related to Proto-Guaicuruan **-a(ʔ)legto* burn (Viegas Barros 2013b, #28).

***[n]tʔá** ‘to gather fruit’ (MN)

Mk *[n]<a>tʔa<ʔa>-kii* / *-tʔa<ʔa>-kii* (Gerzenstein 1999: 133) • Ni *[n(i)]tʔá* (Seelwische 2016: 196)

Viegas Barros (2013a: 306) compares this verb to Proto-Pilagá–Toba **-n-áto* ‘to gather, to collect’.

Viegas Barros 2013a: 306 (*-atʔʌʔ)

***tʔáʔj** ‘to sound, to have voice’ (MN)

Mk *tʔaj* ‘to sound’ (Gerzenstein 1999: 345) • Ni *tʔáʔj* ‘to have voice’ (Seelwische 2016: 289)

***[ji]tʔex** ‘to say’ (MN)

Mk *[ji]tʔix* (Gerzenstein 1999: 212) • Ni *[ji]tʔef* / *-eʔf* [1] (Seelwische 2016: 384)

[1] The allomorph *-eʔf* is irregular and has no counterpart in Maká. It might have an entirely different origin.

***tsaqaq** ~ ***-ä-** ‘plant sp.’ [1] (MN)

Mk *tseqaq* ‘*Cissus palmata*’ (Gerzenstein 1999: 348; Braunstein 1987: 79) • Ni *tsakak* (-is) ‘São Caetano melon (*Cayaponia espelina*)’ (Seelwische 2016: 291)

[1] *Cissus palmata* and *Cayaponia espelina* have in common the trait that while their fruits are unsuitable for human consumption, they are eaten by animals (toucans and maned wolves, respectively).

***(-)tsaʔt, *(-)tsat-its (~ *-ä-) ‘village’ [1] (MN)**

Mk *-tset* [2], *-tset-its* (Gerzenstein 1999: 161) • Ni <ji>*tsaʔt*, <ji>*tsat-is* [3] / *-β-tsaʔt*, *-β-tsat-its* (Seelwische 2016: 338, 385)

[1] This etymology has been first identified by Campbell (submitted).

[2] The Maká reflex unexpectedly lacks preglottalization in the coda in the singular form, as attested in the New Testament (John 1:44).

[3] We have no explanation for the element **ji-* in the absolute form in Nivačle. Campbell submitted (**(w)itset*)

***-xéleʔ ‘dirt’ (MN)**

Mk *-xiliʔ(-j)* (Gerzenstein 1999: 389) • Ni *-fekle(-k)* (Seelwische 2016: 357) Viegas Barros 2002: 142 (**xele*)

***waf ~ *wäf ‘to be tired, to die’ (MN) [1]**

Mk *[ji]wef* ‘to be tired’ (Gerzenstein 1999: 365) • Ni *βaf* ‘to die’ (Seelwische 2016: 313)

[1] Najlis (1984: 29) claims to have discovered a cognate in Chorote (*wax* ‘dead’), but we are unaware of the existence of any similar lexeme in Chorote.

Viegas Barros (2013a: 314) compares the root to Abipón *-oaoa* ‘to die’ (Najlis 1966: 113), but this could be spurious.

Najlis 1984: 29 (**wahw*); Viegas Barros 2013a: 314 (**-wahʷ*)

***waʔj ~ *wäʔj ‘to be wet, to get wet’ (MN)**

Mk *wej-xuʔ* (Gerzenstein 1999: 373) • Ni *βaʔj* (Campbell et al. 2020: 259)

***wapen ~ *wäpen ‘to be ashamed; “shame plant” [1]’ (MN)**

Mk *wepin* ‘to be ashamed; *Cassia patellaria*, *Mimosa chacoensis*’ (Gerzenstein 1999: 367) • Ni *βapen* ‘to be ashamed; *Bauhinia langdorffiana*, *Cassia flexuosa*’ (Seelwische 2016: 334–335)

[1] The plants designated by reflexes of this etymon are species whose leaves close when touched. Both the Maká and the Nivačle rub their leaves against children’s faces so as to prevent them from being shameless.

***(')wawo(h) (*-l) ‘maned wolf’ (MN) [1]**

Mk *wowo(-l)* (Gerzenstein 1999: 380) • Ni *βaβo(-k)* (Seelwische 2016: 358)

[1] This etymology is very similar to **Xmáwoh* ‘fox’ (ChW), but the root-initial consonants do not match. Najlis (1984) lumps these etymologies together.

Najlis 1984: 13, 44 (**mawo ~ *wawo*)

***wáʔm ‘to disappear’ (MN)**

Mk *waʔm* ‘to die’ (Gerzenstein 1999: 360; Braunstein 1987: 203) • Ni *βáʔm* ‘to disappear’ (Seelwische 2016: 371)

***wá'mqâ? [1] 'to wash oneself' (MN)**

Mk *wá'nqa?* (Gerzenstein 1999: 361) • Ni *βámqâ? / -βá'mqâ* (Seelwische 2016: 371)

[1] The Maká form is attested as such in the New Testament (e.g. Matthew 15:2). Gerzenstein (1999: 361) gives simply *wanqa*.

***(?)wána'χ, *(?)wánha-ts 'piranha' (MN)**

Mk *wána'χ*, *wanhe-ts* (Gerzenstein 1999: 361; Braunstein 1987: 67) • Ni *βánax*, *βánxa-s* 'piranha; barn owl' (Seelwische 2016: 370)

***wâpi(?)j [1] 'to unload' (MN)**

Mk *wâpij* [2] 'to have a rest' (Gerzenstein 1999: 362) • Ni *βâpij* (Seelwische 2016: 372)

[1] In PM, the reconstruction of a preglottalized coda is possible only if the root has initial accent (in this case the deglottalization in Nivačle would be regular).

[2] The Maká form is attested as such in the New Testament (e.g. Hebrews 4:10). Gerzenstein (1999: 362) gives *wâpi'i*.

***(?)wá's 'sky' (MN)**

Mk *wá's*, *was-its* (Gerzenstein 1999: 363; Braunstein 1987: 198) • Ni *βá's* (Seelwische 2016: 371)

***(?)wâse? [1] 'cloud' (MN)**

Mk *wâsi?* (-l) (Gerzenstein 1999: 363) • Ni *βâse?* (-j) (Seelwische 2016: 372)

[1] The stem is evidently derived from *(?)wá's ~ *(?)wá's 'sky', but the identity of the second element is unknown.

***-wâ't; *-wât-hajex 'birthmark' (MN)**

Mk *-wat<hejaχ>* (Gerzenstein 1999: 363) • Ni *-βâ't* 'birthmark'; *-βât-xajex* 'mole' (Seelwische 2016: 372–373)

***(?)wq'am ~ *(?)wq'äm 'white-eared opossum' (MN)**

Mk *wq'em* (-its) (Gerzenstein 1999: 368; Braunstein 1987: 49) • Ni *k'am<i>* (-k) (Seelwische 2016: 85)

***(?)wut 'a bushy leguminous plant' (MN)**

Mk *wut* '*Sesbania exasperata*' (Gerzenstein 1999: 382) • Ni *βut* '*Acacia sp.*' (Seelwische 2016: 374)

***?wé't; *?wé't=a? 'one' (MN)**

Mk *<e>wi't* 'one'; *<e>wi't-e?* 'alone' (Gerzenstein 1999: 165; Braunstein 1987: 197) • Ni *βé't<a>* / *-'βé't<a>* (Seelwische 2016: 359)

10 Dictionary

[1] The Maká forms are attested as such in Braunstein (1987: 197) and in the New Testament (e.g. John 3:1; John 15:13). Gerzenstein (1999: 165) gives simply *ewit*, *ewite*.

Fabre (2014: 308) compares the Nivaçle word to the Wichí term for ‘one, only one’ (LB *?iwenjata*; Vej *wenjata*; *’Wk ?iweh’jáhah*, Güisnay *weihata* ~ *unjata* (Nercesian 2014: 358; Viñas Urquiza 1974: 80; Gutiérrez & Osornio 2015: 27; Claesson 2016: 41) and with the Enlhet–Enenlhet term for ‘only, just, just that’ – Enlhet *wa:mta*, Enxet *wanta*, Enenlhet-Toba, Guaná *wanta?* (Unruh & Kalisch 1997: 655; Unruh et al. 2003: 338; Elliott 2021: 245; Kalisch 2023: 191) – but that is likely a spurious comparison.

***xoxaw-u’k** [?] ***xoxi-ju’k**, ***-ku-j^h** [1] ‘*Tabebuia nodosa* tree’ (MN)

Mk *xoxew-u’k* [2], *xoxew-kw-i* (Gerzenstein 1999: 392) • Ni *xoxi-juk*, *xoxi-ku-j* (Seelwische 2016: 149)

[1] The Maká form points to **xoxaw-u’k*, the Nivaçle one to **xoxi-ju’k*.

[2] The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 7).

Viegas Barros 2002: 142 (**xoxewuk*)

***-ʔáφk’u’t** ‘bile’ (MN)

Mk *-ʔaftuk*, *-ʔaftu-j* [1] (Gerzenstein 1999: 114) • Ni *-ʔáφk’u’t*, *-ʔáφk’ut-es* (Campbell et al. 2020: 143, 154)

[1] Maká suffered an irregular metathesis of PM **k’* and **t* and loss of glottalization in both consonants. The coda is attested as plain (with no glottalization) in the New Testament (Matthew 27:34).

Rejected: Campbell & Grondona (2007: 15) list reflexes of PCh **-témek*, PW **-témeq* under this etymology, an obviously false comparison.

Campbell & Grondona 2007: 15

***ʔa’nqo’k** ‘paralytic’ (MN)

Mk *onqok* (-its) [1] (Gerzenstein 1999: 283) • Ni *ʔa’nko’k*, *-ʔankoxo-j* ‘limp, paralytic’ (Fabre 2014: 207; Seelwische 2016: 44)

[1] The Maká reflex unexpectedly lacks preglottalization in both codas, as attested in the New Testament (Mark 2:3).

Fabre 2014: 43, fn. 27

***[t]’aqsin** [?] ***[t]’aq’asin** [1] ‘to sneeze’ (MN)

Mk *[t]’aqsin-kij* [1] (Gerzenstein 1999: 128) • Ni *[t]’ak’asin* (Campbell et al. 2020: 241, 250)

[1] The Maká reflex points to **[t]’aqsin*, the Nivaçle one to **[t]’aq’asin*. A similar root is found in Chorote and Wichí (see **[tʰ]nxát’itsaXan* in §10.8), but the correspondences are entirely irregular.

***[t]'at'o 'to yawn' (MN)**

Mk [t]ot'o-kij (Gerzenstein 1999: 287) • Ni [t]'at'o (Seelwische 2016: 378)

Obviously related to Proto-Guaicuruan *-at'ó 'to yawn' (Viegas Barros 2013b, #132; cf. Viegas Barros 2013a: 305).

Viegas Barros 2013a: 305 (*-at'ó)

***ʔãf̥te'l 'orphan' (MN)**

Mk (-)afti'l [1], (-)aftil-ets (Gerzenstein 1999: 113) • Ni ʔãf̥te'k, ʔãf̥tekl̥-es ~ ʔãf̥tekl̥-ej (ChL-Pi) (Gutiérrez 2015b: 254, 277)

[1] The presence of a preglottalized coda in the Maká singular form is inferred based on the Nivačle cognate; the noun is not attested in our sources that distinguish between plain and preglottalized stops.

Campbell & Grondona 2007: 22; Gutiérrez 2015b: 253

***ʔãthajex (fruit); *ʔãthaj-u'k, *ʔãthaj-ku-j^h (tree) (*-hä-) 'molle plant' (MN)**

Mk athejajx; athej-u'k [1] (-kw-i ~ -ku-ket) 'Sideroxylon obtusifolium' (Gerzenstein 1999: 131) • Ni ʔãtxajex (-s); ʔãtxaj-uk, ʔãtxa-ku-j 'Schinus molle' (Seelwische 2016: 214)

[1] The preglottalized coda in the Maká suffix for tree names is attested elsewhere (UNICEF & Tekombo'e ha Tembikuaa Motenondeha 2022: 7).

***ʔãxtina'x, *ʔãxtinha-ts 'marsh deer (Blastocerus dichotomus)' (MN)**

Mk ax̣tina'x, ax̣tinha-ts [1] (Gerzenstein 1999: 138; Unu'üneiki Patricia 2011: 16, 17) • Ni ʔãxtina'x, ʔãxtinx̣a-s (Seelwische 2016: 211)

[1] The preglottalization in the singular form in Maká is attested in a narrative by Unu'üneiki Patricia (2011: 16, 17).

***ʔomhatäk (fruit); *ʔomhatä-(ju)'k, *ʔomhatä-ku-j^h (tree) (~ *-hä-) 'queen palm (Syagrus romanzoffiana)' (MN)**

Mk omhetek; PL omhet-kw-i (Gerzenstein 1999: 282; Unu'üneiki Patricia 2011: 17) • Ni ʔomxatätf; ʔomxata-juk, ʔomxata-ku-j (Seelwische 2016: 207)

***ʔujhVI [1] 'otter sp.' (MN)**

Mk wihil (-ets) 'lobo pirí otter', wihil-te-ki? (-j) 'lobo pe otter (Lontra longicaudis)' (Gerzenstein 1999: 375; Braunstein 1987: 48) • Ni ʔujxakl̥<ã> (-j) 'lobo pe otter (Lontra longicaudis)' (Seelwische 2016: 306)

[1] The Maká reflex points to *ʔujhel or ʔujhil; the Nivačle one to *ʔujhal or ʔujhāl.

***ʔutsi(h) (*-l) 'marbled swamp eel' (MN)**

Mk utsi (-l) (Gerzenstein 1999: 356) • Ni ʔutsi (-k) (Seelwische 2016: 308)

10.8 ChW only

In this section, we list the cognate sets with reflexes only in Chorote and Wichí. Despite being technically reconstructible only for Proto-Chorote–Wichí, the reconstructions given in this section correspond to the Proto-Mataguanayan level. This is done in order to facilitate the future search of cognates in other languages, but also because a detailed reconstruction of the Proto-Chorote–Wichí phonology is yet to be worked out.

***-áʔl ‘light, brightness’ (ChW)**

PCh 3 **hl-áʔl* > Ijw/Mj 3 *hl-áʔl* (Drayson 2009: 130; Carol 2018) • PW **-t-álʰ* > ʷk *-t-áʔ* (Claesson 2016: 72)

***-áʔm ‘pronominal formative’ (ChW)**

PCh 1 **j-áʔm*; 2 **∅-ʔáʔm*; 1+2 **s-áʔm*; 3 **hl-áʔm*, **hl-ám-is* > Ijw 1 *j-áʔm*; 2 *∅-ʔáʔm*; 1+2 *s-áʔm*; 3 *hl-áʔm*, *hl-ám-is*; Iʷw 1 *j-ém*; 2 *∅-ám*; 1+2 *s-ám*; 3 *hl-ám (-is)*; Mj 1 *j-éʔm*, *j-ém-eʔ*; 2 *∅-áʔm*, *∅-ám-eʔ*; 1+2 *s-áʔm*, *sám-eʔ*; 3 *hl-áʔm*, *hl-ám-is* (Carol 2014a: 90, fn. 20; Drayson 2009: 95, 130, 145, 158; Gerzenstein 1983: 120, 134, 157, 174; Carol 2018) • PW 1 **j-áʔm*; 2 **∅-ʔáʔm*, **∅-ʔám-elʰ*; 1+2 **xn-ám-elʰ*; 3 **t-áʔm*, **t-ám-elʰ* > LB 1 *n-t-am (-it)*; 2 *∅-ʔam (-it)*; 1+2 *to-t-am-it*; 3 *t-am (-it)*; HORT *n-am-it* [1 2]; Vej 1 *ʔo-t-am (-el)*; 2 *∅-ʔam (-el)*; 1+2 (ʔ)*n-am-el*; 3 *t-am (-el)*; ʷk 1 *ʔō-t-áʔm*, *ʔō-t-ám-eʔ* (“formal sociolect”) / *j-áʔm*, *j-ám-eʔ* (“informal sociolect”); 2 *∅-ʔáʔm*, *∅-ʔám-eç* ~ *∅-ʔám-ejaç* ~ *∅-ʔám-eʔ*; 1+2 *ʔin-ám-eʔ*; 3 *t-áʔm* ~ *t-ám*, *t-ám-eʔ* (Nercesian 2014: 335; Viñas Urquiza 1974: 50, 65, 67, 69; Gutiérrez & Osornio 2015: 13; Alvarsson 2012b: 57; Claesson 2016: 12, 32, 45, 231)

[1] Lower Bermejeño Wichí and Vejoz have irregularly lost glottalization in the final nasal (PW *ʔm > m).

[2] Lower Bermejeño Wichí has irregularly raised PW *e to i in the plural suffix.

Likely related to Proto-Guaicuruan *-ʔm, as in **ejé-ʔm* ‘I’, **ʔa-ʔm* ‘thou’, **qʔo-ʔm* ‘we’, **aqʔa-ʔm-ʔi* ‘you all’ (Viegas Barros 2013b, #103, 198, #541, #660; cf. Viegas Barros 2013a: 312). Viegas Barros 2013a: 312 (1 **j-am*; 2 **am*; 3 **t-am*)

***-ámé(ʔ)t / *-ámte-ts ‘word’ (ChW)**

PCh **-ámte-* > Ijw *-ámte-ik*, *-ámte-i-s*; Iʷw *-ámte-ik*, *-ámte-e-s*; Mj *-ámte-eʔ (-s)* ‘word’, *-ámte(i)-ik* ‘discourse, meeting’ (Drayson 2009: 129; Gerzenstein 1983: 121; Carol 2018) • PW **-t-ámet*, **-t-ámet-es* > LB *-t-omet*, *-t-omt-es*; Vej *-t-ámet* ‘word’, *-t-ámet-es* ‘language’ [1]; ʷk *-t-ámet*, *-t-ámet-es* (Nercesian 2014: 166; Gutiérrez & Osornio 2015: 15; Claesson 2016: 70)

[1] The Vejoz reflex is mistranscribed as *-t-amet* ‘word’, *-t-amt-es* ‘language’ in Viñas Urquiza (1974: 65).

Najlis 1984: 17, 23 (**amthe*, 2 **a-amthe*)

***-áte(?) ‘jar’ (ChW)**

PCh *-áte? (*-j^h) > Ijw -ate, -ati-wa [1]; I'w -ate? (-j); Mj -ate? (-j) (Drayson 2009: 129; Gerzenstein 1983: 122; Carol 2018) • PW *^{<xj>}áte (*-j^h) [2] > LB *jote*; Vej *jate* [3]; 'Wk *?ijáte?* (-ç) (Nercesian 2014: 161, 163; Viñas Urquiza 1974: 83; Claesson 2016: 43)

[1] The absence of the stem-final glottal stop in the Iyojwa'aja' reflex could be a mistranscription on Drayson's (2009) part. The plural form in Iyojwa'aja' is non-etymological.

[2] We have no explanation for the element *^{xj}- in Wichí.

[3] The vowel *a* in Viñas Urquiza's (1974) attestation of the Vejoz reflex must be a mistranscription.

***-éle(?) ~ *-ále(?) (*-j^h) ‘inhabitant, inner’ (ChW)**

PCh *-éle? (*-j^h) ‘inhabitant, intestine’ > Ijw -éle? [1]; Mj -éle-j ‘guts’ (Drayson 2009: 130; Carol 2018) • PW *-t-éle (*-j^h) > LB -t-éle (-j); Vej -t-éle (-j) ‘inhabitant’; 'Wk -t-éle? (-ç) ‘inhabitant, inner, tumor, sprout’ (Nercesian 2014: 154; Viñas Urquiza 1974: 66; Gutiérrez & Osornio 2015: 15; Claesson 2016: 73)

[1] In Drayson (2009: 130), a word-final glottal stop is missing from the Iyojwa'aja' term.

****phálawu*'k ‘strangler vine (*Morrenia odorata*)’ (ChW)**

PCh **hwálok* ‘*Morrenia odorata*, *Morrenia variegata*' > Ijw/I'w *hwálok* (Drayson 2009: 133; Scarpa 2010: 189) • PW **x^wálawuk^w* > LB *f^walawek^w*; Vej *h^walak* [1]; 'Wk *x^wálawuk* (Spagarino 2008: 60; Suárez 2014: 189; Gutiérrez & Osornio 2015: 17; Claesson 2016: 164)

[1] The loss of the sequence -*wu*- in Vejoz is irregular. Gutiérrez & Osornio (2015: 17) state explicitly that -*wu*- is preserved in the Pilcomayoñe variety.

***[*ʔi*]phá(t)s'un ‘to spit’ (ChW)**

PCh **[ʔi]hwáts'un-APPL* > Ijw *[ʔi]hwáts'^juhn-e'n* / -*hwáts'^juhn-e'n* [1]; I'w *[i]hjátsen-* / -*f^wátsuhn-en* ~ -*f^watsen-* [2]; Mj *[ʔi]hjéts'an-APPL* ~ *[ʔi]hjéts'on-APPL* / -*hwáts'an-APPL* ~ -*hwáts'on-APPL* [3] (Drayson 2009: 99; Gerzenstein 1983: 44, 129; Carol 2018) • PW **[ʔi]x^wáts'un* > LB *f^watsen-katsi* [2]; Vej -*h^wats'un*; 'Wk *[ʔi]x^wáts'un* (Braunstein 2009: 42; Viñas Urquiza 1974: 58; Claesson 2016: 164)

[1] The palatalization in Iyojwa'aja' *ts'^j* is irregular.

[2] The plain (non-ejective) *ts* in Gerzenstein's (1983) and Braunstein's (2009) attestations of the Iyo'awujwa' and Lower Bermejeño forms must be a mistranscription.

[3] The vowel of the second syllable of the stem is unexpectedly lowered in Manjui.

***-phél ~ *-phál ‘to wrap, to hug, to fold, to bend’ [1] (ChW)**

PCh **[ʔi]k'aw-hwél(...)-hop* ‘to hug’ [2] > I'w -<*k^ja*>*f^wél-ap* [3]; Mj *[ʔi]<t^fe>hwéhl-ap* / -<*ʔa*>*hwéhl-ap* ‘to raise with one's arms’;

*[ʔi]k'aw-hwél-(...)-eh > Mj [ʔi]<tʰe>hwél-e / -<ʔa>hwél-e 'to raise or hold with one's arms' (Gerzenstein 1983: 141; Carol 2018) • PW *[t]<tsu>x^wel^h 'to hug, to contract one's muscles involuntarily' [4] > LB [ta]tsef^wel 'to hug'; 'Wk [t(a)]tsúx^wel-APPL 'to hug, to fight'; *[ʔi]<qá>x^w(e)l-APPL / *[ʔi]<qá>x^wnh-APPL > 'Wk [ja]qáx^w(e)l-APPL / [ja]qáx^weł-APPL / [ja]qáx^wŋ-APPL 'to wrap, to fold'; *[t]<k'ó>x^wel-APPL / *[t]<k'ó>x^wnh-APPL > 'Wk [t(a)]k'óx^weł-k'á? / [t(a)]k'óx^wŋ-APPL 'to be bent, curved, tortuous' (Nercesian 2014: 248; Claesson 2016: 193, 303–304, 359, 386)

[1] This morpheme can be alternatively described as a verbal root that requires an incorporated object or as a suffix with a highly lexical meaning.

[2] The Chorote reflex is a compound whose initial element is a reflex of the Proto-Mataguayan verb *[t]k'aw-APPL 'to hold in one's arms, to hug'.

[3] Gerzenstein's (1983) attestation of the Iyo'awujwa' reflex must be a mistranscription for -k'af^wéhlap.

[4] The dialectal reflexes with different applicatives attested in Lunt (2016: 98) show the following meanings: 'to feel pain in the muscles', 'to shrink when feeling cold', 'to limp', 'to have brucellosis'.

**philá*(^o)*X*₁₂ 'Solanum sp.' (ChW)

PCh *hwílâh > Ijw hwél'e? [1] 'Solanum sp.; Argemone subfusiformis'; Mj hwíl(ⁱ)e ~ hwél(ⁱ)e 'Solanum sisymbriifolium' (Drayson 2009: 133; Carol 2018) • PW *x^wilâχ > 'Wk x^wilâx (Claesson 2016: 169)

[1] The Iyojwa'aja' reflex is entirely irregular; one would expect *-hwél'a.

*-*philä*(^o)k 'dream'; *-*phítan* 'to dream' (ChW)

PCh *-hwíhlek; *[ʔi]hwíhlan > Ijw -hwéhlik, -hwéhl-Ø-a? ~ -hwéhl-ik-is; [ʔi]hwíhl'a'n / -hwéhl'a'n; I'w -f^wéhlík; -f^wéhl'en; Mj -hwíhlik; [ʔi]hjíhlan / -hwíhlan (Drayson 2009: 100, 119; Gerzenstein 1983: 130; Hunt 1994; Carol 2018) • PW *-x^wítēq; *[t]x^wítan > LB -f^wítēq; [t(a)]f^wítan; Vej -h^wítēk, -h^wít-ēj; 'Wk -x^wítēk, -x^wít-aç ~ -x^wít-ēç; [t(a)]x^wítan (Nercesian 2014: 150; Viñas Urquiza 1974: 123; Gutiérrez & Osornio 2015: 35; Claesson 2016: 61, 356)

Najlis 1984: 48 (*hwehle)

*-*phom* 'to throw, to push' (ChW)

PCh *-hwóm-ah 'to push' > I'w -f^wóm-a; Mj [ʔi]hjóm-a / -hwóm-a (Gerzenstein 1983: 130; Carol 2018) • PW *[t]x^wóm 'to throw' > LB [ta]f^wum-eχ; Vej -h^wóm; 'Wk [t(a)]x^wóm (Nercesian 2014: 47; Viñas Urquiza 1974: 59; Claesson 2016: 357)

Viegas Barros (2013a: 304) compares the verb with Proto-Guaicuruan *-a'm-áqa 'to push' (Viegas Barros 2013b, #46), which could be spurious.

Viegas Barros 2013a: 304 (*-h^wám 'to push')

***-*φólXaʹn* ‘ankle’ [1] (ChW only)**

PCh **-h^wóhlaʹn* > Mj *-h^wóhlaʹn* (Carol 2018) • PW **-x^wónhaʹn* > Guisnay *-h^woŋan*, *-h^won-lis* (Lunt 2016: 33)

[1] This is a likely derivative of PM **-φo(?) ~ *-φó(?)* ‘foot’.

****φ(u)nájXV(?)j* [1] ‘earthworm, amphisbaenian’ (ChW)**

PCh **ʔ^hnáhjáʔ* > Ijw *ʔihnáhjaʔ*, *ʔihnáhjaj-is* ‘earthworm (*Pheretima hawayana*)’; Mj *ʔihn^jéheʔ* [2] (Drayson 2009: 98; Hunt 1994) • PW **x^wunájxij* > LB *f^winaŋij ~ f^winaŋaj* [3] ‘earthworm’; Vejoz or Guisnay *hunaçi (-lis)* [4] ‘earthworm’; ^ʹWk *x^wunáhiʔ* [5] (Nercesian 2021; Lunt 2016: 39; Claesson 2016: 176)

[1] It is unclear whether this etymon should be reconstructed with a stem-initial consonant cluster (assuming epenthesis in Wichí) or with PM **u* (assuming syncope in Chorote). Regarding the vowel of the stem-final syllable, Iyojwa’aja’ points to PM **á*, most Wichí varieties to **i*, and one dialectal reflex to **a*.

[2] Manjui *h* is not the expected reflex of PCh **hj*.

[3] The forms attested in Nercesian (2021) are irregular reflexes of PW **x^wunájxij*. One would expect **f^wenaŋij*.

[4] The Vejoz or Guisnay form attested in Lunt (2016) shows an irregular development of PW **x^w* and an irregular loss of the stem-final **j*. One would expect the reflex **h^wunaçiij*.

[5] The ^ʹWeenhayek reflex attested in Claesson (2016) shows an irregular loss of both instances of PW **j*. One would expect the reflex **x^wunáçiijʔ*.

****[ʔi]ʔjáXin* ‘to watch’ (ChW)**

PCh **[ʔi]ʔjáan* > Ijw *[ʔi]ʔjéʹn*; Iʹw *-jén-a* [1] ‘to look after’, *-jén-e* ‘to spy’; Mj *[ʔi]ʔjéen* (Alvarsson 2012b: 89; Drayson 2009: 118; Gerzenstein 1983: 134; Carol 2018) • PW **[ʔi]jáhin*, imp. *jáhin* > LB *[ʔi]jahin*, imp. *jahin*; Vej *-jahren* [2]; ^ʹWk *[ʔi]jáhiŋ*, imp. *jáhiŋ* (Nercesian 2014: 148, 177; Viñas Urquiza 1974: 82; Claesson 2016: 521)

[1] The seemingly plain *j* in Iyo’awujwa’ could be a mistranscription on Gerzenstein’s (1983) part.

[2] Vejoz *e* is not the regular reflex of PW **i*.

****jiʹno*, **jiʹnó-l* ‘man’ (ChW)**

PCh **ʔiʹnóʔ (*-l)* ‘man, person’ > Ijw *ʔiʹn^jóʔ (-ʹl)*; Iʹw *in^jóʔ* ‘person’; Mj *ʔiʹn^(j)óʔ (-l)* (Carol 2009–2010: 100; Drayson 2009: 117; Gerzenstein 1983: 131; Carol 2018) • PW **hiʹno*, **hiʹnó-l^b* > LB *hiʹnu (-ʔ)*; Vej *hiʹno* [1]; ^ʹWk *hiʹno*, *hiʹnó-ʔ* (Nercesian 2014: 191, 196; Gutiérrez & Osornio 2015: 12; Claesson 2016: 148)

[1] Viñas Urquiza (1974: 57) mistranscribes the word as *hino*.

Najlis 1984: 13, 16 (**iʹhno*); Viegas Barros 2002: 144 (**χinoʔ*)

***ká'lah, *ká'la-ts 'lizard' (ChW)**

PCh *ká'lah, *ká'la-s > Ijw k'é'la; I'w/Mj k'é'la (-s) (Drayson 2009: 135; Gerzenstein 1983: 142; Carol 2018) • PW *k'á'lah, *k'á'la-s > LB tfa'la; Vej tfa'la [1]; 'Wk k'á'lah, k'á'la-s (Nercesian 2014: 123; Viñas Urquiza 1974: 51; Gutiérrez & Osornio 2015: 20; Claesson 2016: 185)

[1] The sound change *l > l in Vejoz is irregular.

Rejected: Ni kaklā'matax 'gray iguana' (Seelwische 2016: 57) is very similar to PM *ká'lah, but cannot be a reflex thereof for phonological reasons (one would expect *ka'kīā). Formally, it could be a compound of -kākīā? 'leg', -'mat 'physical defect', and -tax 'similar to'.

Najlis 1984: 47 (*cela); Campbell & Grondona 2007: 17

***[ji]ká(?)t 'to be red' (ChW)**

PCh *[ʔi]kát > Ijw [ʔi]s'át; I'w [ʔi]s'át ~ [ʔi]s'é't; Mj [ʔi]f'ét / -k'é't (Carol 2014a: 76; Drayson 2009: 110; Gerzenstein 1983: 132; Carol 2018) • PW *[ʔi]k'át > LB [ʔi]t'ot; Vej -t'āt; 'Wk <ʔi>k'át [1] (Nercesian 2014: 312; Braunstein 2009: 40; Viñas Urquiza 1974: 52; Gutiérrez & Osornio 2015: 42; Claesson 2016: 27)

[1] The third-person prefix ʔi- has fossilized to the root in 'Weenhayek.

Najlis 1984: 22 (3 *j-cāt)

***[ji]k'á? 'to be torn' (ChW)**

PCh *[ʔi]k'á? > Ijw [ʔi]s'á? / -k'á?; I'w -k'é'ʔe; Mj [ʔi]f'é? / -k'é'ʔe (Drayson 2009: 110; Gerzenstein 1983: 141; Carol 2018) • PW *[ʔi]k'á? > LB [ʔi]t'of?; 'Wk [ʔi]k'á? (Nercesian 2014: 237; Claesson 2016: 27)

***-kéjâ(?) 'granddaughter'; *-kéjâts 'grandson'; *-ké(j)tsâ-ts 'grandchildren' (ChW)**

PCh *-kéjâ?; *-kéjâs; *-kéjtsâs [1] > Ijw -k'ija?; -k'ijas; -k'itfas; I'w —; -k'ijas ~ -k'ijes; —; Mj -k'ije?; -k'ijes; -k'ifes (Carol 2014a: 122; Drayson 2009: 122; Gerzenstein 1983: 139, 210; Carol 2018) • PW *-k'éjâ; *-k'éjâs; *-k'étsâs > LB -tfejo; -tfejos; —; Vej -tfejâ; -tfejâs; -tfejsos [1]; 'Wk -k'éjâ?; -k'éjâs; -k'étsâs (Nercesian 2014: 194; Gutiérrez & Osornio 2015: 29; Claesson 2016: 64, 65)

[1] The cluster PCh *ts is reconstructed based on the Iyojwa'aja' reflex with an affricate. Note that Chorote has no affricate /ts/, suggesting that we are dealing here with a cluster composed of /t/ and /s/.

[2] The Vejoz reflexes are mistranscribed in Viñas Urquiza (1974: 52), who gives -tfeja and -tfejas for the former two items (the plural is not attested). Note that the vowel o in -tfejsos is not the regular reflex of PW *â.

Najlis 1984: 49 (*c'ejâs 'grandson')

***(-)késoj ~ *(-)kásoj ‘skin disease’ (ChW)**

PCh **késoj* > Ijw *-kíso* (-ʔl) ‘acne’; Iʷw *-kíxsoj* (Drayson 2009: 122; Gerzenstein 1983) • PW **k'ésoj* > Vejoz or Guisnay *tfoesoj* ‘scabies; kind of leguminous plant with edible roots whose leaves burn one’s skin’ (Lunt 2016: 21)

***kójXa(ʔ)t ‘to be heavy’ (ChW)**

PCh **kóhjat-APPL* > Ijw *k'óhjet-i*; Iʷw [*a*]*k'ówiht-i?* ~ *k'óhje(h)t-i?*; Mj *k'óhjih-t-ij?* (Drayson 2009: 136; Gerzenstein 1983: 78, 143, 214; Carol 2018) • PW **k'ójhat* > LB *ni-tfuñat*; Vej *-tfoñat* [1]; ʷWk *k'óçet* [2] (Braunstein 2009: 53; Gutiérrez & Osornio 2015: 62; Claesson 2016: 196)

[1] Viñas Urquiza (1974: 115) mistranscribes the Vejoz reflex as *tfojnjat*.

[2] ʷWeenhayek *e* is not the regular reflex of PW **a*.

***kóʔl ‘locust’ (ChW)**

PCh **kóʔl* > Ijw *k'óʔl*; Iʷw *k'ól*; Mj *k'óʔl*, *k'ól-is* (Drayson 2009: 136; Gerzenstein 1983: 143; Carol 2018) • PW **k'ól^h* > LB *tfuʔ*; Vej *tfoʔ*; ʷWk *k'ólʔ* (Nercesian 2014: 51; Viñas Urquiza 1974: 53; Gutiérrez & Osornio 2015: 20; Claesson 2016: 193) Najlis 1984: 52 (PL **cól-s*)

***kowäʔx / *-kówäʔx [1] ‘hole’ (ChW)**

PCh **kowéh* / **kóweh* > Ijw *-k'ówe*, *-k'óhw-aʔl* [2] ‘center, inner part’; Iʷw *-k'ówe* ‘in the middle of’; Mj *k'owéh*, *k'owé-jh* / *-k'ówe* (Drayson 2009: 122; Gerzenstein 1983: 143; Carol 2018) • PW **k'owex* / **k'ówex* > LB *tfuwex* ‘in the middle of’; Vej *tfoweh* ‘well’; ʷWk *k'owex*, *k'óm-áç* / *-k'ówex*, *-k'óm-aç* (Nercesian 2014: 276; Gutiérrez & Osornio 2015: 48; Claesson 2016: 194)

[1] This term is likely an obscure compound, with PM **-wáʔx* as its second part.

[2] The Iyojwaʔajaʔ plural form is non-etymological.

***kpéna(ʔ)X₁₂ ~ *kpäna(ʔ)X₁₂, *kpénX₁₃a-ts ~ *kpänX₁₃a-ts ‘orphan’ (ChW)**

PCh **kpénah*, **kpénha-s* [1] > Ijw *kimpéna*, *kimpéhna-s*; Iʷw *kimpéna* (-s); Mj *kilpéna* [2] (Drayson 2009: 136; Gerzenstein 1983: 140, 202) • PW **kpénaç*, **kpénha-s* > Guisnay *tfipénah* [2]; ʷWk *pénax*, *péña-s* (Claesson 2016: 292)

[1] We have no explanation for the element **-em-* in Chorote (which irregularly yields *-il-* in Manjui).

[2] Lunt (2016: 21, 73) documents the variant *penah* alongside *tfipénah* in Wichí, but does not indicate the dialectal precedence of these variants (his dictionary includes Vejoz and Guisnay forms). Since Vejoz is otherwise known to simplify word-initial consonant clusters composed of two stops, we surmise that the variant *tfipénah* is Guisnay.

***ktá'nih, *ktá'ni-ts 'Chaco tortoise' (ChW)**

PCh *kitá'nih, *kitá'ni-s > I'w kit'éne?, kit'éni-s [1]; Mj kití'ni ~ kití'n'e (-s) (Gerzenstein 1983: 140; Carol 2018) • PW *k'tá'nih > LB tfitá'ni; Vej ta'ni (-lajis); 'Wk tá'nih (Nercesian 2014: 52, 231; Gutiérrez & Osornio 2015: 22; Claesson 2016: 346)

[1] The plain reflex of PCh *'n in Iyo'awujwa' as attested by Gerzenstein (1983) must be a mistranscription.

Rejected: Najlis (1984: 22, 51) compares the Chorote word with Ni t'at'a (-s) 'Chaco tortoise' (Seelwische 2016: 110) and reconstructs *cethán. We reject this possibility; the expected reflex of PM *ktá'nih in that language would actually be *kta'ni.

***ktéta(?) ~ *ktáta(?) (fruit); *ktéta-(ju)k ~ *ktáta-juk (tree) 'Prosopis elata' (ChW)**

PCh *kitéta?; *kitéta-k, *kitéta-k'u-j^h > Ijw kitíta-k; Mj kitíta?a (-s); kitíta-k, kitíta-ku-j (Drayson 2009: 136; Carol 2018) • PW *k'jéta; *k'jéta-k > South-eastern (Salta) tfiteta; tfitete-k; 'Wk téta?; téta-k (Suárez 2014: 291; Claesson 2016: 396)

***kutsá(?)X₁₂ ~ *kutsé(?)χ [?] *k'utsá(?)X₁₂ ~ *k'utsé(?)χ [1] 'cháguar (Bromelia hieronymi)' (ChW)**

PCh *k'usáh > Ijw k'iséh; I'w isáh (-as); Mj žisáh (Drayson 2009: 137; Gerzenstein 1983: 131; Carol 2018) • PW *k'jutsáχ > LB tfitsaχ [2]; Vej t'futsah; 'Wk kutsáχ [3] (Spagarino 2008: 59; Viñas Urquiza 1974: 53; Gutiérrez & Osornio 2015: 17; Claesson 2016: 178)

[1] The Chorote form points to PM *k', and the Wichí one to PM *k.

[2] LB *i* is not the expected reflex of PW **u*.

[3] The unpalatalized *k* in the 'Weenhayek form is entirely irregular.

Rejected: Najlis (1984: 26) compares the Wichí reflex with the reflexes of PW *[hi]k'út 'old', Ni k'utsa'x 'old', and Ijw k'út 'little owl' (Hunt 1915: 90), which cannot be related for phonological and/or semantic reasons.

***-k'Vnt(?)... [1] 'kidney'**

PCh *-kánt'ijaa? > Ijw -k'jént'ije? (-jis); I'w -k'éntije? (-jis); Mj -k'ént'ijee? (-l) (Drayson 2009: 122; Gerzenstein 1983: 142; Carol 2018) • PW *-k'jontowaj 'kidney' > Vej -tfontowaj; 'Wk -k'jontowaj?, -k'jontowa-lis (Viñas Urquiza 1974: 53; Claesson 2016: 65)

[1] The correspondences between Chorote and Wichí are so irregular that it is impossible to reconstruct the protoform.

***-k'aló(?) (*-ts) 'cheek' (ChW)**

PCh *-k'aló? (*-ts) > Ijw -k'^jólo? (-s) [1]; I'w -k'aló? (-s) [2]; Mj -(ʔ^e)ló? (-s) (Drayson 2009: 123; Gerzenstein 1983: 141; Carol 2018) • PW *-k'^jálo (*-s) > LB -tʃ'alu; Vej -tʃ(')alo (-s); 'Wk -k'^jálo? (-s) (Nercesian 2014: 48; Viñas Urquiza 1974: 54; Gutiérrez & Osornio 2015: 60; Claesson 2016: 67)

[1] The Iyojwa'aja' reflex is entirely irregular; one would expect *-k'^jeló? (*-s).

[2] The plain reflex of PCh/PW *k'^j in Iyo'awujwa' and Vejoz as attested by Gerzenstein (1983) and Gutiérrez & Osornio (2015: 60) is unexpected.

Rejected: Najlis (1984: 35, 45) lists Ni -ku? (-l) 'cheek' as a member of this cognate set, but not a single segment of this root shows any regular correspondence with the Chorote and Wichí roots listed here.

Najlis 1984: 35, 37, 45 (*cálb; *cábnce 'jaw'); Campbell & Grondona 2007: 16

***-k'óX₂₃te(?) (*-j^h) 'ear' (ChW)**

PCh *-k'óote? (*-j^h) > Ijw -k'^jóte? [1]; I'w -k'óte? (-j) [2]; Mj -ʔóote? (-jh) (Drayson 2009: 123; Gerzenstein 1983: 143, 211; Carol 2018) • PW *-k'^jóte (*-j^h) > LB -tʃ'ute (-j); Vej -tʃ'ote; 'Wk -k'^jóte? (-ç) (Nercesian 2014: 112, 164; Braunstein 2009: 40; Viñas Urquiza 1974: 54; Gutiérrez & Osornio 2015: 29; Claesson 2016: 68)

[1] The Iyojwa'aja' word is mistranscribed as -k'^jóte in Drayson (2009).

[2] The plain reflex of PCh *k' in Iyo'awujwa' as attested by Gerzenstein (1983) must be a mistranscription.

Possibly related to Proto-Guaicuruan *-k'et'élV 'ear' (Viegas Barros 2013b, #341; cf. Viegas Barros 2013a: 309).

Najlis 1984: 16, 44 (*c'ote); Viegas Barros 2013a: 309 (*-k'ote) 'ear'

***[ʔi]lát(?) 'to feel' (ChW)**

PCh *[ʔi]lát-ej^h > Ijw [ʔi]l'át-e / -lát-e; Mj [ʔi]l'ét-ej / -lát-ej (Drayson 2009: 101; Carol 2018) • PW *[ʔi]lát > LB [ʔi]lot; Vej -lát 'to hear'; [hi]lát-e 'to smell'; 'Wk [ʔi]lát (Nercesian 2014: 315; Viñas Urquiza 1974: 64; Gutiérrez & Osornio 2015: 35; Claesson 2016: 213)

***nílsa(?)X₁₂, *níltsX₁₃a-ts 'white-lipped peccary' (ChW)**

PCh *<ʔih>nílsah, *<ʔih>nílsa-s [1] > Ijw ʔihníls'e; I'w ihnílsa-tók, ihnílsa-s-tó-ji; Mj ʔihnílsa (-s ~ -∅) (Drayson 2009: 98; Gerzenstein 1983: 132; Carol 2018) • PW *nílsaχ, *nílsha-s > LB nítsaχ; Vej nítsah; 'Wk nítsax, níts^ha-s (Braunstein 2009: 52; Viñas Urquiza 1974: 68; Gutiérrez & Osornio 2015: 21; Claesson 2016: 273)

[1] We have no explanation for the element *ʔih- in Chorote.

Rejected: Najlis (1984) compares the reflexes of PW *nílsaχ with the Nivaçle term for 'wild cavy' (tʃaxani) and the Chorote term for 'Chacoan peccary' or 'collared peccary' (Ijw kíhn'e,

I'w *kihnije* (-s), Mj *kíhn'e?e* (-s)), which are poor matches from both the phonological and semantic points of view.

****ntá(°)k* 'two' (ChW)**

PCh **nták* > I'w *nták*; Mj *inták* (Gerzenstein 1983: 152; Carol 2018) • PW **niták^w* 'two, many' > LB *nitok^w* 'many'; Vej *niták^w* 'many' (> 4) [1]; 'Wk *niták^w* 'two, many' (Nercesian 2014: 356; Gutiérrez & Osornio 2015: 27; Claesson 2016: 271)

[1] Viñas Urquiza (1974: 74) documents Vej *-tak^w* 'two', which must be the same word.

Najlis 1984: 39 (**tawk*)

***[t°]nxát'itsaXan [1] 'to sneeze' (ChW)**

PCh **[t°]hnát'isaan* > Ijw *[ti]hn'ét'is'ie'n / -hnát'is'ie'n*; I'w *-hnátis'en* [2]; Mj *[ti]hn'é?ifeen / -hná?ifeen ~ -hná?afeen* [3] (Carol 2014b; Gerzenstein 1983; Carol 2018) • PW **[t]ná?tsan* [?] **[t]ná?tshan* [4] > LB *[ta]na?tsan*; 'Wk *ná?ts^han* (Nercesian 2014: 157; Claesson 2016: 253)

[1] The reconstruction is tentative. We assume that the element **-nxá-* is identical to the PM root **-na'x ~ *-ná'x*, **-nxá-ts* 'nose'. A similar root is found in Maká and Nivaçle (see **[t]aqsin* [?] **[t]aq'asin* in §10.7), but the correspondences are entirely irregular. We have also contemplated the possibility that the correct reconstruction is **[t°]nxáq'isaXan*, which would be more similar to the Maká and Nivaçle forms and could account for the otherwise irregular Manjui reflex, but such a decision would require to posit additional irregular developments for Iyojwa'aja', Iyo'awujwa', and Wichí.

[2] The plain stop *t* in Gerzenstein's (1983) attestation of the Iyo'awujwa' reflex, as opposed to an ejective stop *t'*, must be a mistranscription.

[3] Manjui has irregularly debuccalized the ejective stop **t'* and shows an optional translingual harmony.

[4] Wichí has irregularly lost the PM guttural fricative. It also shows an irregular syncope of the vowels in the medial syllables. The Lower Bermejeño Wichí reflex points to **[t]ná?tsan*, the 'Weenhayek one to **-ná?tshan*. Lunt (2016: 65) attested the surprising forms *-neks^han* and *-naks^han*, but does not indicate their dialectal precedence.

***[j]ókφe(°)(t)s ~ [j]ókφä(°)(t)s ~ [j]ékφe(°)(t)s ~ [j]ékφä(°)(t)s 'frighten away [animals]' (ChW)**

PCh **[j]ókwes* > Ijw *[j]ók'os / -ók'os*; Mj *[j]ókes / -ókes* (Drayson 2009: 161; Carol 2018) • PW **[j]ók^wes* > 'Wk *[j]ókes* (Claesson 2016: 551)

***-pák'o (*-l) 'heel' (ChW) [1]**

PCh **-pók'o? (*-l)* [2] > Ijw *-pók'jo? (-°l)*; I'w *-pók'jo? (-l)*; Mj *-pó?o? (-l)* (Drayson 2009: 125; Gerzenstein 1983: 156; Carol 2018) • PW **-pák'jo (*-l^h)*

‘foot’ > LB *-patʃu* (-ʃ); Vej *-patʃo* (-ʃ) [3]; ‘Wk *-pákʲoʔ* (-ʃ) (Nercesian 2014: 201; Viñas Urquiza 1974: 69; Gutiérrez & Osornio 2015: 61; Claesson 2016: 79)

[1] This is obviously a fossilized compound of an unidentified root **-pa-* and PM **-kʲo*, **-kʲó-l* ‘bottom’.

[2] Chorote has apparently undergone irregular vowel harmony.

[3] The glottalization of the stem-medial consonant is missing in Gutiérrez & Osornio (2015: 61).

Rejected: Najlis (1984: 55) lists Ni *-pʲikʲo* ‘heel’ under this etymology. We regard it as a fossilized compound whose second element is also PM **-kʲo*, **-kʲó-l* ‘bottom’, but whose first element is a cognate of Maká *-ʃiʔ* ‘foot’ (thus *-pʲi-kʲo* < **-ʃi-kʲo*).

Najlis 1984: 36, 45, 55 (**pácɔ*, 2 **a-pácɔ*, PL **pacʷl*)

***pá(°)x ~ *pá(°)χ ~ *pá(°)x ~ *pá(°)x ~ *pá(°)χ ~ *pé(°)χ** [1] ‘to pass (of time), to be soon’ (ChW)

PCh **páh* > Ijw *páh*, CAUS [*ʔi*]p^háh-anit; Mj [*ʔa*]páh ‘to be ancient, to spend a lot of time doing something’ (Drayson 2009: 109, 142; Carol 2018) • PW **páχ* ‘to take time’, **(-)pax(-)* ‘deictic root found in temporal adverbs’ > LB *pax* ‘later’; ‘Wk *páx* ‘to take time’ CAUS [*ʔi*]pá-nit-ex, (-)pax(-) (Nercesian 2014: 342–343; Claesson 2016: 288–289)

[1] The Iyojwa’aja’ causative points to PM **á*, and the Wichí reflex points to **á*, **á*, or **é*. If Mk *paʔax* ‘a long time ago’ (Gerzenstein 1999: 294) is shown to be related, the original vowel should be reconstructed as **á*, with an irregular evolution in Wichí.

***páʔjih** ‘frog (*Leptodactylus* sp.)’ (ChW)

PCh **páʔjih* > Ijw *páʔji* (-his); I’w *páji* [1]; Mj *páʔi* ~ *páʔji* (-wa ~ -∅) (Drayson 2009: 143; Gerzenstein 1983: 154; Carol 2018) • PW **páʔjih* > LB *poʔji*; Vej *páʔji* [2]; ‘Wk *páʔjih* (-lis ~ -łajis) (Nercesian 2014: 47; Gutiérrez & Osornio 2015: 22; Claesson 2016: 284)

[1] The plain reflex of PCh **ʔj* in Iyo’awujwa’ as attested by Gerzenstein (1983) must be a mistranscription.

[2] Viñas Urquiza (1974: 70) mistranscribes the root as *paʔji*.

Rejected: It is tempting to include Mk *paxpajeʔ* (-l) ‘a tiny frog (*Melanophryniscus fulvoguttatus*)’ in this cognate set, but the expected reflex of PM **páʔjih* in Maká would be **paʔjiʔ*, making the comparison dubious.

Najlis 1984: 12, 17 (**pa(-)i*)

***pá(°)q** ‘kind of zorzal (*Turdus* sp.)’ (ChW)

PCh **páq* > Ijw *pák-hitʰok* ‘creamy-bellied thrush (*Turdus amaurochalinus*)’; Mj *pák* ‘bird sp.’ (Drayson 2009: 143; Hunt 1994) • PW **páq* ‘creamy-bellied thrush (*Turdus amaurochalinus*)’ > Vejoz or Guisnay *pák*; ‘Wk *páq* (Lunt 2016:

72; Claesson 2016: 286); **pâq-taχ* ‘>’ LB *poq-taχ* ‘creamy-bellied thrush (*Turdus amaurochalinus*)’; Vejoz or Guisnay *pâk-t’âh* ‘rufous-bellied thrush (*Turdus rufiventris*)’ [1] (Spagarino et al. 2013 [2011]; Lunt 2016: 72)

[1] The form *pâk-t’âh*, attested in Lunt (2016), is quite unexpected. The regular reflex would be *pâq-tah*. It is unknown whether this form should be attributed to the Vejoz or to the Guisnay variety.

*[*ʔi*]pâ(°)x ~ *[*ʔi*]pâ(°)χ ~ *[*ʔi*]pâ(°)x ~ *[*ʔi*]pâ(°)χ ‘to hit’ (ChW)

PCh *[*ʔi*]pâh > Ijw [*ʔi*]pâh / -pâh; Mj [*ʔi*]pé-e / -pâ-a ‘to slap with one’s palm’ (Drayson 2009: 109; Carol 2018) • PW *[*ʔi*]pâχ-APPL ‘to beat’, *[*ʔi*]<nhâ>pâχ ‘to punch’ > LB [*ʔi*]poχ-ti ‘to punch’, [*ʔi*]nopoχ-ti ‘to punch (iteratively)’, -poχ-hek ‘blow (noun)’; ’Wk [*ʔi*]pâx(-APPL)-tih ‘to beat (iteratively)’, [*ʔi*]nâpâx ‘to punch’ (Nercesian 2014: 161, 224, 298, 365; Claesson 2016: 285)

*[*ʔi*]pén ~ *[*ʔi*]pân ‘to cook’ (ChW)

PCh *[*ʔi*]pén > Ijw [*ʔi*]pî’n / -pé’n; I’w -pén; Mj [*ʔi*]pín / -pén (Drayson 2009: 110; Gerzenstein 1983: 155; Carol 2018) • PW *[*ʔi*]pén > LB [ta]pen<ek>; Vej -pen; ’Wk [*ʔi*]péη (Braunstein 2009: 56; Viñas Urquiza 1974: 70; Claesson 2016: 292)

Najlis 1984: 9 (2 *hl-pén)

*pex ~ *pâx ‘each time, every time’ (ChW) [1]

PCh *péh > Ijw péh (Carol 2014b) • PW *=peχ > LB =peχ; Vej -peh; ’Wk -pex (Nercesian 2014: 304; Viñas Urquiza 1974: 70; Claesson 2016: 291)

[1] Even though we have not found cognates in Iyo’wujwa’ or Manjui, we find the Iyojwa’aja’ form unlikely to be a Wichí borrowing because it shows a greater degree of autonomy (it is always stressed and does not behave like an enclitic or suffix). The putative Guaicuruan cognates listed above yield further support to the possibility that the etymon in question is old enough.

Likely related to Proto-Guaicuruan *pek’e ‘each (distributive)’ (Viegas Barros 2013b, #721).

púle(?) (-ts) ‘sky, cloud’ (ChW)

PCh *pule? (*-s) > Ijw póli? (-s) ‘cloud’, póli? (-jis) ‘sky’ [1]; I’w púle? ~ -ó ~ -i?; Mj pólle? (-s) (Drayson 2009: 144; Gerzenstein 1983: 156, 189, 211; Carol 2018) • PW *púle (*-s ~ *-łajis) > LB pele; Vej pule (-łajis); ’Wk púle? (-s ~ -łajis) (Nercesian 2014: 161; Viñas Urquiza 1974: 70, 112; Gutiérrez & Osornio 2015: 44; Fernández Garay 2006–2007: 213; Claesson 2016: 296)

[1] The Iyojwa’aja’ form is mistranscribed as póli in Drayson (2009).

Najlis 1984: 9, 43 (*pule)

***púm ‘drum’ (ChW)**

PCh *púm (*-is) > Ijw pólom, póm-is; I’w póm-itók, póm-is-itó-ji; Mj póm, -póm-is (Drayson 2009: 144; Gerzenstein 1983: 156; Carol 2018) • PW *púm > LB pem; Vej pum; ’Wk púm-tax (Braunstein 2009: 54; Viñas Urquiza 1974: 70; Claesson 2016: 296)

***qaka (*-l / *-qáka (*-l)) ‘medicine’ (ChW)**

PCh *-qáka? (*-l) > Ijw -kák’e? [1]; I’w -kák’e?(-l) (Drayson 2009: 120; Gerzenstein 1983: 136) • PW *qak^ha, *qak^há-ł *-qák^ha (*-l^h) > LB qatfa; Vej -katfa (-l) [2]; ’Wk qak^ha?, qak^há-ł / -qák^ha?(-ł) (Nercesian 2014: 199; Viñas Urquiza 1974: 61; Gutiérrez & Osornio 2015: 47; Claesson 2016: 85, 306)

[1] The Iyojwa’aja’ form is mistranscribed as -kák’e in Drayson (2009).

[2] The Vejoz reflex is attested with an aspirated velar in Gutiérrez & Osornio (2015: 47): -k^hatfa (-l).

***[t]qási(?)t / *-qási(?)t ‘to stand’ (ChW)**

PCh *[t^h]qásit > Ijw [ta]káxsit; I’w -ká(x)sit; Mj [ti]káxfit (Drayson 2009: 148; Gerzenstein 1983: 139, 213; Carol 2018) • PW *[t]qásit, imp. *qásit > LB [ta]qasit; Vej [ta]kasit; ’Wk [t(a)]qásit, imp. qásit (Nercesian 2014: 275; Braunstein 2009: 55; Viñas Urquiza 1974: 61; Gutiérrez & Osornio 2015: 35; Fernández Garay 2006–2007: 217; Claesson 2016: 375)

Najlis 1984: 46 (*qahsit)

***qatsíwo(?) ‘limpkin’ (ChW)**

PCh *qasiwo<?oh> [1] > Ijw kaséwo?o; Mj kaséiwo?o, kasíwo?o (-s) (Drayson 2009: 134; Carol 2018) • PW *qatsíwo > LB tsiwu [2]; ’Wk qatsíwo? (Spagarino et al. 2013 [2011]; Claesson 2016: 317)

[1] We have no explanation for the element *-?oh in Chorote.

[2] The root-initial syllable was irregularly lost in Lower Bermejeño Wichí.

***qawa(?)q / -qáwa(?)q ‘belt, band’ (ChW)**

PCh *-qáwak > Ijw -ká^hwak, -ká^hwak^h-awa [1]; I’w -káwak (Drayson 2009: 121; Gerzenstein 1983: 138) • PW *-qáwaq > LB -qawaq; ’Wk qawaq, qawáq-aç / -qáwaq (-aç) (Braunstein 2009: 47; Claesson 2016: 317)

[1] The glottalization in ’w in Iyojwa’aja’ is unexpected.

***-qá?tu(?) ‘yellow’ (ChW)**

PCh *-qá?tu? > I’w ká?ts^hu<t^hu?>; Mj -ká?at^hu? (Gerzenstein 1983: 138; Carol 2018) • PW *qá?tu > LB qa?te; Vej ka?tu [1]; ’Wk <ja>qá?tu? (Braunstein 2009: 47; Gutiérrez & Osornio 2015: 42; Claesson 2016: 527)

[1] Viñas Urquiza (1974: 62) mistranscribes the root as -kátu.

Najlis 1984: 25 (*qatu)

***-qátsile(?) (*-j^h) ‘guts’ [1] (ChW)**

PCh *-qátsile-j^h > Ijw -káxsili (-wa) ‘intestine, umbilical cord’; I’w -káxsili; Mj -káxfili (Drayson 2009: 121; Gerzenstein 1983: 139; Carol 2018) • PW *-qásle (*-j^h) > LB -t(a)-qosle-j; Vej -kásle; ’Wk -qásle-j^h (Nercesian 2014: 164, 339; Viñas Urquiza 1974: 62; Claesson 2016: 83)

[1] This is likely an opaque compound of *-qá-ts ‘food (pl.)’ and *-éle(?) ~ *-ále(?) (*-j^h) ‘inhabitant, inner’ (in Chorote also ‘intestine’).

Najlis 1984: 16 (*qatsle); Campbell & Grondona 2007: 15

***-qótso(?) ‘node’ (ChW)**

PCh *-qóso-ke? > Ijw -kóxso-ki (-jis) [1]; I’w -kóxso-ki? (-wa?) (Drayson 2009: 123; Gerzenstein 1983: 144) • PW *-qótso > LB -qutsu; ’Wk -qótso? ~ [ta]qótso? (-t) (Braunstein 2009: 48; Claesson 2016: 89)

[1] The absence of a word-final glottal stop in Drayson’s (2009) attestation of this noun must be a mistranscription.

Najlis 1984: 24 (*kɔtshəq)

***[t]qXán ‘to dig’ [1] (ChW)**

PCh *[t^ɔ]q(h)án > Ijw [ta]ká’n; Mj [ti]k(x)án, [ti]k(h)án (Drayson 2009: 148; Hunt 1994; Carol 2018) • PW *[t]χhán > ’Wk [t(a)]xháṅ (Claesson 2016: 352)

[1] The reconstruction *qX is highly tentative. Note that the cluster xh in ’Weenhayek is unique and occurs only in this root. In Manjui, the verb is attested as [ti]khán in Carol (2018) but with a plain -k- in Hunt (1994); we concede that [kh], [kx] could be simply allophones of /k/ before a low vowel in Manjui; see §8.2.2.1 *in fine*.

***-q’á(°)X₁₂ ‘tongue’ (ChW)**

PCh *-q’áh > I’w -káh (-es) [1]; Mj -k’áh (-as) (Gerzenstein 1983: 138; Carol 2018) • PW *-q’áχ ‘mouth’ > LB -q’áχ; Vej -kah [1]; ’Wk -q’áx (Nercesian 2014: 121; Gutiérrez & Osornio 2015: 60; Claesson 2016: 89)

[1] The plain reflex of the stem-initial stop in Iyo’awujwa’ and Vejoz as attested in Gerzenstein (1983) and Gutiérrez & Osornio (2015: 60) must be a mistranscription.

Rejected: Najlis (1984: 23) compares the Wichí word with Ni -tʃak̄letf, -tʃakxe-s ‘tongue’ (Seelwische 2016: 109) and reconstructs *k’ahn hle. Campbell & Grondona (2007: 16) and Viegas Barros (2013a: 309), in turn, compare the Nivaçle word with the Wichí compound *-q’áχ-t-ik’u ‘tongue’ (literally ‘the egg of the mouth’); Viegas Barros reconstructs PM *-kahlik’u. The comparisons are untenable; the Nivaçle word must go back to *-k’álek, *-k’álhe-ts.

Campbell & Grondona 2007: 16

***silóʔtáϕV(?)** [?] ***siwóʔtáϕe(?)** [1 2] ‘Caatinga puffbird’ (ChW)

PCh *silóʔtáhwV? [2] > Ijw sil'óʔt'ohwa? [1]; Mj filóʔtahwej (Drayson 2009: 145; Carol 2018) • PW *siwótáx^we > LB siwutof^we; 'Wk siwótáx^we? (Spagarino et al. 2013 [2011]; Claesson 2016: 330)

[1] Chorote points to PM *l and Wichí to PM *w.

[2] Wichí points to PM *-e(?), whereas in Chorote one finds different endings in Iyojwa'aja' and Manjui, neither of which matches the evidence from Wichí.

***spú(°)p** ‘dove’ (ChW) [1]

PCh *s^opúp > Ijw sipóp [2] ‘Picui dove’; I'w sipóp (-is); Mj fipóp (-is) (Drayson 2009: 146; Gerzenstein 1983: 159; Carol 2018) • PW *spúp > LB sipep ‘white-tipped dove’; Vej sipup ‘white-tipped dove’; 'Wk supúp [3] (Spagarino et al. 2013 [2011]; Gutiérrez & Osornio 2015: 22; Claesson 2016: 332)

[1] Maká has a similar root, sapip (-its) ‘white-tipped dove’ (Gerzenstein 1999: 323), but the vowels are very different from those found in Chorote and Wichí.

[2] The Iyojwa'aja' reflex is attested as sipóp in Carol (2014a: 99), which is most likely a mis-transcription.

[3] The 'Weenhayek reflex shows an irregular sound change *i > u.

***stá(°)X (fruit); *stá-°q (plant)** ‘*Stetsonia coryne* cactus’ (ChW)

PCh *ʔ^ostáh; *ʔ^ostá-k > Ijw ʔist'é; ʔist'é-k, ʔist'é-k'et; I'w ʔistá-k, ʔistá-ki-ʔ; Mj ʔistáh ~ ʔiftáh; ʔiftá-k ~ ʔiftá-k (Drayson 2009: 112; Gerzenstein 1983: 132; Carol 2018) • PW *ʔistá-q > LB ʔista-q ‘white cactus’; Southeastern (Salta) ʔista-q; Vej ista-k ‘Mataco tree’; 'Wk ʔistá-k [1] ‘*Cereus giganteus*’ (Nercesian 2014: 339; Suárez 2014: 242; Gutiérrez & Osornio 2015: 18; Claesson 2016: 37)

[1] The velar consonant -k in 'Weenhayek is explained as a result of analogical leveling (the suffix for trees -(u)k ends in a velar consonant). Note that in PM *k was banned following the vowel *a, which is why the compound of *stáX and *-uk has the shape *stá-q and not **stá-k. Najlis 1984: 39 (*s-thek (plant))

***stáϕe(?)** ‘Chaco chachalaca’ (ChW)

PCh *ʔ^ostáhwe? (*-waʔ) > Ijw ʔist'áhwe, ʔist'áhwi-waʔ; I'w istáf^we (-waʔ); Mj ʔistáhwe? ~ ʔiftáhwe? (-l ~ -waʔ) (Drayson 2009: 112; Gerzenstein 1983: 132; Carol 2018) • PW *ʔistáx^we > Southeastern (Salta) sitof^we ~ ʔistof^we; Vej istáh^we; 'Wk ʔistáx^we? (Suárez 2014: 178; Gutiérrez & Osornio 2015: 20; Claesson 2016: 37)

[1] The Vejoz reflex is mistranscribed as istah^we in Viñas Urquiza (1974: 61).

Najlis 1984: 39 (*s-tháhwe)

***tátsna(°)X₁₂ ~ *tátsne(°)χ ‘toad’ (ChW)**

PCh *tásVnah > Ijw táxsina ‘*Rhinella arenarum*’; I’w táxsina ~ táxsena (-s); Mj táxsena (-as) ‘cururu toad’ (Carol 2014a: 99; Drayson 2009: 149; Gerzenstein 1983: 163; own field data; Carol 2018) • PW *tátnaχ [2] > LB totnaχ; Vej tátnah; ’Wk tátnaχ, tátña-s (Braunstein 2009: 58; Viñas Urquiza 1974: 121; Claesson 2016: 344)

[1] PCh *V can stand for any vowel that fails to cause both the first and the second palatalization in Chorote (such as *a or *á).

[2] Lunt (2016: 84) documents the form *tátsinah* alongside *tátnah*, but does not indicate whether it is representative of Vejoz or Guisnay. If it turns out to be a Guisnay form, it could be an old Chorote borrowing.

Viegas Barros 2002: 144 (*tátsinaχ)

***-témä(°)k, *-témha-j^h ~ *-á- ‘bile’ (ChW)**

PCh *-témek, *-témha-j^h > Ijw -témik, -témha-l [1]; I’w -témak, -téma-j [2]; Mj -témak (Carol 2014a: 93; Drayson 2009: 126; Gerzenstein 1983: 164; Carol 2018) • PW *-témeg, *-témha-j^h > LB -temeq, -tema-j ‘an organ of a fish’; Vej -temek; ’Wk -témek (Nercesian 2014: 192; Viñas Urquiza 1974: 75; Gutiérrez & Osornio 2015: 57; Claesson 2016: 93)

[1] The plural form in Iyojwa’aja’ is non-etymological.

[2] The consonant *m* (rather than **hm*) in the plural form in Iyo’awujwa’ is unexpected and could result from mistranscription.

Rejected: Campbell & Grondona (2007: 15) list Ni -ʔaφk’u’t, Mk -ʔaftuk under this etymology, an obviously false comparison.

Campbell & Grondona 2007: 15

***tkéna(°)X₁₂ ~ *tkána(°)X₁₂, *tkénX₁₃a-ts ~ *tkänX₁₃a-ts ‘precipice; hill, mountain’ (ChW)**

PCh *t^əkénah, *t^əkéhna-s ‘precipice’; *t^əkéhna-k^ʲeʔ ‘mountain’ > Ijw tikína ‘ravine’, tikihna-kiʔ (-s) [1] ‘mountain’; I’w takihna-kiʔ (-ji) ‘mountain’; Mj takína, takihna-s ‘precipice’, takihn^ʲe-kiʔ (-j) ‘mountain’ (Drayson 2009: 151; Gerzenstein 1983: 162; Carol 2018) • PW *tk^ʲénaχ, *tk^ʲénha-s ‘mountain, hill’ > LB tatfenax; Vej tfenah, tfeña-s; ’Wk k^ʲénax, k^ʲéña-s (Nercesian 2014: 51; Braunstein 2009: 56; Viñas Urquiza 1974: 72; Gutiérrez & Osornio 2015: 43; Claesson 2016: 187)

[1] The Iyojwa’aja’ word is mistranscribed as *tikihna-ki* in Drayson (2009: 151).

Rejected: Najlis (1984: 11) lists Ni *φtfenax* ‘north wind’ as a member of this cognate set. We derive it from PM *φkénax ‘north wind, north’ instead. Campbell & Grondona (2007: 15) compare the Chorote word with Ni -takoʔ ‘forehead’, -tako-jif ‘ravine’, an obviously spurious comparison.

Najlis 1984: 11, 41 (*cenaq ~ *t-cenaq)

***-tk'útu(?) 'marrow' (ChW)**

PCh *-<té>k'uhlu? 'brain, marrow' > Ijw -ték'ihli [1] 'brain'; I'w -tékihlí, -tékihlé-j [1] 'marrow'; Mj -té'ihl'u? [2] (Drayson 2009: 126; Gerzenstein 1983: 164; Carol 2018) • PW *-tk^j'útu > 'Wk -k^j'útu? (Claesson 2016: 68)

[1] The absence of a word-final glottal stop in Drayson's (2009) attestation of this noun must be a mistranscription.

[2] This is mistranscribed as -téi'ihl'u? in Carol (2018).

Rejected: Viegas Barros 2013a: 313 compares the Chorote term with Maká -xkitiła 'brain, marrow' and reconstructs PM *hetekiłV, an obviously false comparison. He also includes Mbayá <-atiquelo>, <-atiquilo> 'brain, marrow' as possible Guaicuruan cognates.

***(-)tútse(?)χ [1] 'smoke' (ChW)**

PCh *(-)túsah > Ijw tóxsə (-hes); I'w tóxsa, tóxsi-s; Mj (-)tóxsa (Drayson 2009: 153; Gerzenstein 1983: 166; Carol 2018) • PW *(-)tútsaχ > LB tetsaχ; Vej tutsah; 'Wk (-)tútsax, tútse-tax 'mist' (Nercesian 2014: 47; Viñas Urquiza 1974: 77; Claesson 2016: 95, 426)

[1] PM *-eχ (rather than **-aχ or **-ax) is reconstructed based on 'Wk tútse-tax 'mist' and I'w tóxsi-s, which show that the root had the allomorph *tútse- before suffixes.

Possibly related to Proto-Guaicuruan *-á(?)lodqa 'smoke' (Viegas Barros 2013b, #35).

Rejected: Najlis (1984: 43) includes Nivačle štutax 'soot' into the comparison, which is implausible for phonological reasons.

Najlis 1984: 16, 43 (*tutsha); Viegas Barros 2002: 144 (*tutsaχ)

***-tXá(?)t 'to throw, to put' (ChW)**

PCh *[ʔi]tát-APPL > Ijw [ʔi]t'ét-APPL / -tát-APPL; I'w -tát-e; Mj [ʔi]t(ʔ)ét-APPL / -tát-APPL (Carol 2014a: 76; Drayson 2009: 113; Gerzenstein 1983: 163; Carol 2018) • PW *[ʔi]thát > LB [ʔi]t^hat; Vej -tat [1]; 'Wk [ʔi]t^hát (Nercesian 2014: 255, 280; Braunstein 2009: 45; Viñas Urquiza 1974: 74; Claesson 2016: 455)

[1] The absence of aspiration in Vej -tat, as attested by Viñas Urquiza (1974: 74), could be a mistranscription.

Najlis 1984: 52 (1PL *a-tat-ehne)

***[ʔi]tsá(?)j 'to spill' (ChW)**

PCh *[ʔi]sáj? > Ijw [ʔi]s'á(j)-APPL / -sá(j)-APPL; I'w -sáj-APPL; Mj [ʔi]fėj? / -sáj? (Drayson 2009: 110; Gerzenstein 1983: 157; Carol 2018) • PW *[ʔi]tsáj > LB [ʔi]tsoj-ka; Vej -tsaj; 'Wk [ʔi]tsáj? (Braunstein 2009: 43; Viñas Urquiza 1974: 55; Claesson 2016: 462)

Najlis 1984: 11 (*tsaj)

***-tséłá(?) ~ *-á-** ‘sharp corner, tip’; ***-tséłá-(ʔ)χ** ~ ***-á-**, ***-tséłá-ts** ~ ***-á-** ‘sharp’; ***-tséłá-(ʔ)t** ~ ***-á-** ‘to sharpen’ (ChW)

PCh ***-séhłá-h-iʔ**, ***-séhłá-s-iʔ** ‘to be sharp’; ***-séhłá-ht-iʔ** ‘to sharpen’ > Ijw **[ʔi]síhla-h-e**, **[ʔi]síhla-s-itsʔiʔn** [1]; **[ʔi]síhla-t-i / -séhla-t-i**; Mj **[ʔa]séhleh-ijʔ**; **[ʔi]fihle-ht-ijʔ / -séhle-ht-ijʔ** (Drayson 2009: 111; Carol 2018) • PW ***-tséłá(?)**; ***-tséłá-(ʔ)χ**; ***-tséłá-(ʔ)t** > LB **-tseło(?)** [2]; **ʔi-tsełoχ**; **ʔWk -tséłáʔ (-s)**; **ʔi-tséłáχ**, **-ʔi-tséłá-s**; **[ni]tséłá-t** (Braunstein 2009: 43, 48; Claesson 2016: 40, 110, 464)

[1] The absence of a word-final glottal stop in Drayson’s (2009) attestation of the singular form must be a mistranscription.

[2] This root is not attested in Nercesian (2014), hence the uncertainty regarding the presence of a word-final glottal stop. Braunstein (2009) documents a word-final glottal stop in this form, but since he is otherwise known to document one where Nercesian (2014) documents none, the datum is considered unreliable.

***tsémłá(?)k ~ *tsámłá(?)k** ‘silk floss tree’ (ChW)

PCh ***sémhlāk** > Ijw **sémhlak**; Iʔw **sémlak (-is)** [1]; Mj **sémhlak (-ij)** (Drayson 2009: 145; Gerzenstein 1983: 158; Carol 2018) • PW ***tsémłák^w** > LB **tsemłok^w** [2]; Vej **tsemłák^w**, **tsemłák-uj**; **ʔWk tsémłák (-uç)** (Spagarino 2008: 59; Gutiérrez & Osornio 2015: 18; Claesson 2016: 464)

[1] The absence of *h* in the Iyo’awujwa’ form attested in Gerzenstein (1983) must be a mistranscription.

[2] Nercesian (2014: 384) gives the form *tsemłoq*, which could be a mistranscription.

Rejected: Najlis (1984: 37) includes Chorote *sel* ‘thorn’ (probably a mistranscription PCh ***hl-é-l** ‘its thorns’, since the first-person plural form ***s-é-l** ‘our thorns’ cannot seem to be pragmatically felicitous) as a possible cognate, which is absolutely impossible for phonological and semantic reasons.

Najlis 1984: 17, 37 (***semhla-uk ~ *selnauk**)

***tsóna(?)** ‘red brocket’ (ChW)

PCh ***sónaʔ** > Ijw **sónaʔ (-jis)**; Iʔw **són-ta (-s)** ‘sheep’; Mj **són(a)-ta (-s)** ‘sheep’ (Drayson 2009: 147; Gerzenstein 1983: 161; Carol 2018) • PW ***tsóʔnah** > LB **tsuʔna**; Vej **tsoʔna** [1]; **ʔWk tsóʔnah**, **tsóʔna-lis** (Nercesian 2014: 197; Viñas Urquiza 1974: 55; Gutiérrez & Osornio 2015: 23; Claesson 2016: 466)

[1] Viñas Urquiza’s (1974) attestation of the Vejoz reflex as *tsona* (with no glottalization) must be a mistranscription.

Najlis 1984: 28 (***sonatha** ‘sheep’)

***tsu(?)X** [?] ***tsʔu(?)X** (fruit); ***tsuX-uk** [?] ***tsʔuX-uk** (tree) ‘sachamembrillo (*Capparis tweediana*)’ (ChW)

PCh ***tsʔúh**; ***tsʔúh-uk** > Ijw **<mé>tsʔu**; **<mé>tsʔu-k** ~ **tsʔówk** ~ **tsʔéwk**; Iʔw **tsʔów<k>** ~ **tsʔéw<k>** [2]; Mj **sʔú<k>** (Drayson 2009: 139; Gerzenstein 1983:

167; Scarpa 2010: 187; Carol 2018) • PW **tsúhuk*^w [3] > LB *tsehek*^w; 'Wk *tsúhuk* (Spagarino 2008: 62; Claesson 2016: 467)

[1] Chorote points to PM **ts'* (or **s'*), and Wichí to **ts*.

[2] The Iyo'awujwa' reflex is mistranscribed as *tsok* in Gerzenstein (1983: 167).

[3] Suárez (2014: 247) documents the reflex *tjjuhuk* ~ *?itjjuhuk* without specifying the location where this name was attested.

***[ji](t)s'u(?) 'to suck' (ChW)**

PCh **[ʔi]ts'ú-APPL* > Ijw *[ʔi]ts^j'ú-APPL* / *-ts'ó-APPL*; I'w *[i]ts^jú-f^we?* / *-tsó-f^we?* ~ *-tsó-wej*; Mj *[ʔi]t^f'ú-uj?* / *-ts'ó-uj?* (Drayson 2009: 115; Gerzenstein 1983: 42, 167, 194; Carol 2018) • PW **[hi]ts'u(?)* > Vej *-ts'u* 'to absorb'; 'Wk *[hi]ts'u?* (Viñas Urquiza 1974: 56; Claesson 2016: 470)

Najlis 1984: 11 (**ts'o*)

***(-)(t)s'u-k 'añapa drink' [1] (ChW)**

PCh **ts'ú<k>* > I'w *tsók* [2] (Gerzenstein 1983: 167) • PW **-ts'ú<k^w>* > LB *-ts'ek^w* 'suction'; Southeastern (Salta) *-t^ʃek^w*; 'Wk *-ts'uk*, *-ts'úh-uç* (Nercesian 2014: 268; Suárez 2014: 247; Claesson 2016: 101)

[1] This is transparently analyzable as a participle of **[ji](t)s'u(?)* 'to suck'.

[2] The non-glottalized affricate in the Iyo'awujwa' reflex must be a mistranscription on Gerzenstein's (1983) part.

***wkína(?)X₁₂, *wkínX₁₃a-ts 'metal' (ChW) [1]**

PCh **w^kínah*, **w^kínha-s* > Ijw *wikín'e*, *wikíhnⁱe-s* (Carol 2014a: 74, fn. 1; Drayson 2009: 157) • PW **k^jinaç*, **k^jínha-ts* > LB *-t^finaç* 'knife'; *t^finaç-t'-oç* 'money'; Vej *t^finah*; 'Wk *k^jínax*, *k^jínha-s* (Nercesian 2014: 326, 447; Viñas Urquiza 1974: 53; Gutiérrez & Osornio 2015: 47; Claesson 2016: 191)

[1] Despite the suspiciously narrow distribution of this etymology (only Iyojwa'aja' and Wichí), the possibility of a Wichí borrowing in Iyojwa'aja' is excluded because of the correspondence between Ijw *wik* and PW **k^j*.

Najlis 1984: 28 (**wcihna*)

***wóna(?) 'bala wasp (*Polybia ruficeps*) honey(comb); hat' (ChW)**

PCh **wóna?* (**-l*) 'bala wasp (*Polybia ruficeps*) honey(comb)' > Ijw *wóna?*; I'w/Mj *wóna?* (*-l*); **wón(a)-tah*, **wón(a)-ta-s* 'hat' > Ijw *-ka-wónta* (*-s*); I'w *wónta* (*-s*); Mj *-ka wón(a)-ta* (*-s*) (Drayson 2009: 157; Gerzenstein 1983: 171; Carol 2018) • PW **wóⁿnah* > LB *wuⁿna*; Vej *wona* 'bee' [1]; 'Wk *wóⁿnah* (Nercesian 2014: 173; Braunstein 2009: 62; Viñas Urquiza 1974: 81; Claesson 2016: 488)

[1] The absence of glottalization in Viñas Urquiza's (1974) attestation of the Vejoz reflex must be a mistranscription.

***wóp'ih ~ *wóϕ'ih ~ *móp'ih ~ *móϕ'ih [1]** 'snowy egret, great egret' (ChW)

PCh *wóp'ih > Ijw wóp'i 'snowy egret'; Mj wóp'i (-is) (Drayson 2009: 157; Carol 2018) • PW *móp'i > LB mup'i 'great egret'; 'Wk móp'i? (-łajis) (Spagarino et al. 2013 [2011]; Claesson 2016: 250)

[1] Chorote points to *w- and Wichí to *m-.

***wósak'V(?)t [1]** 'red-crested cardinal' (ChW)

PCh *wósak'at (-is) > I'w wóxsijét (-is); Mj wóxfet (-is) (Gerzenstein 1983: 172; Carol 2018) • PW *wósak^j'it ~ *wósak^j'ut [1] > LB wusatf'it; Vej wos(a)tf'ut [1]; 'Wk wósak^j'it (Spagarino et al. 2013 [2011]; Viñas Urquiza 1974: 81; Gutiérrez & Osornio 2015: 23; Claesson 2016: 503)

[1] Regarding the vowel of the final syllable, Chorote points to PM *a, Lower Bermejeño and 'Weenhayek to PM and PW *i, whereas Vejoz wosatf'ut (Viñas Urquiza 1974) or wostf'ut (Gutiérrez & Osornio 2015, with an irregular syncope) point to PW and PM *u.

***[ʔi]wún 'to burn (vt.)' (ChW)**

PCh *[ʔi]wún > Ijw [ʔi]jú'n / -wú'n; I'w -wún; Mj [ʔi]jún / -wún (Drayson 2009: 117; Gerzenstein 1983: 172; Carol 2018) • PW *[ʔi]wún > LB [ʔi]wen-eχ 'to set on fire'; 'Wk [ʔi]wún (Braunstein 2009: 46; Claesson 2016: 511)

Najlis 1984: 53 (2 *hl-wún)

***wá(?)x, *wáx-aj^h 'stagnant water' (ChW)**

PCh 3 *hl-<a>wáh (*-aj^h) > Mj hla'wáh, hla'wá-aj (Carol 2018) • PW *wáχ, *wáh-aj^h > Vej wah (-aj) [1] 'water'; 'Wk wáx, wáh-aç (Viñas Urquiza 1974: 79; Gutiérrez & Osornio 2015: 44; Claesson 2016: 105)

[1] The semantically shifted Vejoz reflex has irregularly lost the glottalization in the initial consonant.

***-wóle(?) (*-j^h) 'leaf, hair, feather' (ChW)**

PCh *-wóle? (*-j^h) > Ijw -wóle? [1]; I'w -wóle? (-j); Mj -wóle? (-j) (Drayson 2009: 128; Gerzenstein 1983: 171; Carol 2018) • PW *-wóle (*-j^h) > LB -wúle ~ -wu'le ~ -wule (-j) [2]; Vej -wóle (-j); 'Wk -wóle? (-ç) (Nercesian 2014: 170, 233, 294, 321; Braunstein 2009: 61; Gutiérrez & Osornio 2015: 61; Claesson 2016: 57)

[1] The Iyojwa'aja' form is mistranscribed as -wóle in Drayson (2009).

[2] The variants -wu'le-j ~ -wule-j, attested in Nercesian (2014), are irregular.

[3] Viñas Urquiza (1974: 81) mistranscribes the root as -wole.

***-wu(?)j 'clothes, blanket' (ChW)**

PCh *-wúj? > Ijw -wúw?, -wúj-e; I'w -wúj [1] (Drayson 2009: 128; Gerzenstein 1983: 172) • PW *-wuj > LB (-)wuj [2]; Vej -wuj [2]; 'Wk -wuj? (Nercesian

2014: 132; Braunstein 2009: 61; Viñas Urquiza 1974: 82; Gutiérrez & Osornio 2015: 69; Claesson 2016: 57)

[1] The absence of glottalization in the initial consonant in Iyo'awujwa' and Vejoj must be a mistranscription on Gerzenstein's (1983) part.

[2] Braunstein (2009) and Viñas Urquiza (1974) fail to attest the glottalization in the initial consonant in Lower Bermejeño.

***X₁₃ajá'wu(?)** [?] ***X₁₃ajáwu(?) (*-l)** [1] 'shaman' (ChW)

PCh *ʔajá'wu? (*-l) > Ijw ʔajé'wu? (-ʔ ~ -lis); I'w ajéwu? (-l) [2]; Mj ʔajé'wu? (-l) (Carol 2014b; Drayson 2009: 95; Gerzenstein 1983: 117; Carol 2018) • PW *hajáwu(?) (*-l^h) > LB hajawe(?); 'Wk hijáwu? (-ʔ) [3] (Braunstein 2009: 41; Claesson 2016: 151)

[1] Chorote points to PM *X₁₃ajá'wu(?), whereas Wichí points to *X₁₃ajáwu(?). The Towothli doculect of Maká has a similar root, *ejawin* (Hunt 1915: 245–251), but it cannot correspond to the Chorote and Wichí forms.

[2] The absence of glottalization in Gerzenstein's (1983) attestation of the Iyo'awujwa' reflex must be a mistranscription.

[3] 'Weenhayek *i* is not the regular reflex of PW *a.

Hunt 1915: 240; Najlis 1984: 41, 43, 48 (*jɛwu); Viegas Barros 2002: 144 (*χajawu)

***[ji]X₁₃án-ex** 'to know' (ChW)

PCh *<ʔ[j]a>hán-eh [1] > Ijw ʔ[j]ihén-e / -ʔahán-e; I'w -hán-eʔ; Mj ʔ[j]ehén-e / -ʔahán-e (Carol 2014a: 91; Drayson 2009: 165; Gerzenstein 1983: 173; Carol 2018) • PW *[ji]hán-eχ > LB [ji]han-eχ; Vej -han-eh; 'Wk [ja]hán-ex (Nercesian 2014: 308; Viñas Urquiza 1974: 56; Claesson 2016: 141)

[1] We have no explanation for the element *-ʔa- in Chorote.

***Xmáwoh; *Xmáwo-taχ, *Xmáwo-ta-ts** 'fox' (ChW)

PCh *máwo-tah (*-as) > I'w máwo-ta (-s); Mj máwo-ta ~ máwa-ta (-as) 'crab-eating fox' (Gerzenstein 1983: 148; Carol 2018) • PW **máwoh 'fox'; **máwo-taχ, **máwo-ta-s 'maned wolf' > LB mawu; mawu-taχ; Vej ʔmawo (-ʔlajis); ʔmawo-tah, ʔmawo-ta-s [2]; 'Wk ʔimáwoh, ʔimáwo-lis 'South American gray fox; culpeo'; ʔimáwo-taχ, ʔimáwo-ta-s (Nercesian 2014: 197; Gutiérrez & Osornio 2015: 21; Claesson 2016: 31)

[1] This etymology is very similar to *wawo (*-l) 'maned wolf' (MN), but the root-initial consonants do not match. Najlis (1984) lumps these etymologies together.

[2] Viñas Urquiza (1974: 67) documents *ma'wo*; *mawo-tah*, which must be a mistranscription. Najlis 1984: 13, 44 (*mawo ~ *wawo)

***-X₁₃úsek ~ *-X₁₃úsäk ‘temperance’ (ChW)**

PCh *-húsek > Ijw -hóxsik [1]; Mj -hóxssek (Drayson 2009: 113; Carol 2018) • PW *-húsek, *-húse-j^h ‘temperance, soul’ > LB -hesek, -hese-j; Vej -husek; ’Wk -húsek, -húse-ç (Nercesian 2014: 191; Braunstein 2009: 41; Viñas Urquiza 1974: 58; Claesson 2016: 60)

[1] The raising of PCh *e to Ijw i is not known to be regular.

Rejected: Najlis (1984: 47) compares the Wichí reflex to those of PM *-sâq’âl ~ *-sâq’âl ‘soul, spirit’.

***-ʔaʔá(?) ‘fat’ (ChW)**

PCh *-ʔahlá? > Ijw -ʔahlá? ‘honey, liquid, fat’; Mj -ʔihlá? (-s) ‘fat (while on one’s body)’ (Drayson 2009: 154; Carol 2018) • PW *-t-’aʔá(?) > ’Wk -t-’aʔá? (Claesson 2016: 96)

***-ʔa(?)q ‘rope, cord’ (ChW)**

PCh *-ʔák, *-ʔaq-áj? > Ijw -ʔák, -ʔak-á’l ~ -ʔak-á? [1]; I’w 3 t-ák, t-ak-áj [2]; Mj 3 t-’ák, t-’ak-áj? ‘rope, cable, shoe lace’ (Carol 2014a: 92; Drayson 2009: 154; Gerzenstein 1983: 162; Carol 2018) • PW *-t-’aq, *-t-’aq-áj^h > LB -t-’aq; Vej 3 t-’ak ‘band, rope, headband’; ’Wk -t-’aq (-áç) ‘object for tying, chain’ (Nercesian 2014: 212; Viñas Urquiza 1974: 77; Claesson 2016: 96)

[1] The plural form -ʔak-á’l in Iyojwa’aja’ is non-etymological.

[2] The plain t in Gerzenstein’s (1983) attestation of the Iyo’awujwa’ reflex must be a mistranscription.

***ʔaté(?)k ~ *ʔatá(?)k ‘cebil (*Anadenanthera colubrina*) or vinal (*Prosopis ruscifolia*)’ (ChW)**

PCh *ʔátek > Ijw/I’w ʔaték (Drayson 2009: 94; Scarpa 2010: 185) • PW *ʔatéq > LB ʔateq; Vej atek; ’Wk tek ~ ték [1] (Spagarino 2008: 62; Nercesian 2014: 193; Viñas Urquiza 1974: 51; Claesson 2016: 391)

[1] The absence of any trace of PW *ʔa- in the ’Weenhayek reflex is unexpected. Claesson (2016: 391) is unsure whether the vowel e is short or long in this noun.

***ʔat’e(?)t)s ~ *ʔat’ä(?)t)s ‘aloja drink’ (ChW)**

PCh *ʔat’és > Ijw ʔat’és; I’w ʔatés ‘drink’; Mj ʔat’és, ʔat’éf-is (Carol 2014a: 77; Gerzenstein 1983: 122; Carol 2018) • PW *hat’es > LB hat’es; Vej hates [1]; ’Wk hat’es (Nercesian 2014: 230; Viñas Urquiza 1974: 57; Claesson 2016: 147)

[1] The plain t in Viñas Urquiza’s (1974) attestation of the Vejoj reflex must be a mistranscription.

Rejected: Najlis (1984: 46) lists Ni -ã’t ‘drink’ under this etymology, which instead goes back to PM *-ã’t.

Hunt 1915: 240; Najlis 1984: 46 (*âtetsh)

***ʔatsXa(ʔ), *ʔatsXá-l ‘dorado’ (ChW)**

PCh *ʔasáʔ(*-l) > Ijw ʔasáʔ(-ʔl); I'w asáʔa(-l) (Drayson 2009: 94; Gerzenstein 1983: 122) • PW *ʔatsha(ʔ), *ʔatshá-l^h > Vej ats^ha(-l); 'Wk ʔats^haʔ, ʔats^há-ʔ (Gutiérrez & Osornio 2015: 20; Claesson 2016: 19)

Najlis 1984: 11, 17 (*atsá ~ *atsa-a)

***ʔ[n]áφé(ʔ)ʔ ~ *ʔ[n]áφá(ʔ)ʔ ‘to be ashamed’ (ChW)**

PCh *ʔ[n]áhweʔ > Ijw ʔ[n]ahweʔ / -ʔahweʔ; Mj ʔ[n]ahweʔ / -ʔahweʔ (Carol 2014a: 91; Drayson 2009: 162; Carol 2018) • PW *ʔ[n]áx^wéʔ ~ *ʔ[n]áx^wél^h [1] > LB [n]oh^weʔ [2]; 'Wk ʔ<n>áx^wéʔ / [hi]ʔ<n>áx^wt- / [hi]ʔ<n>áx^weʔ- (Braunstein 2009: 53; Claesson 2016: 48–49)

[1] The variant *ʔ[n]áx^wél^h, which does not match the Chorote cognate, is reconstructed based on the 'Weenhayek allomorph with *ŋ*, as in [hi]ʔnáx^weŋ-oʔ 's/he feels ashamed in front of'.

[2] The Lower Bermejeño reflex is attested as *noh^weʔ* in Braunstein (2009: 53), but this must be a mistranscription for *noh^weʔ.

***ʔ[j]o ‘ripe’ (ChW)**

PCh *ʔ[j]ó-ʔeʔ > Ijw ʔ[j]ó-ʔweʔ; I'w jó-weʔ [1]; Mj ʔ[j]ó-ʔweʔ (Drayson 2009: 166; Gerzenstein 1983: 135; Carol 2018) • PW *ʔ[j]o > LB ʔ[j]u; 'Wk ʔ[j]oʔ (Nercesian 2014: 349; Claesson 2016: 127)

[1] Drayson (2009: 166) mistranscribes the Iyojwa'aja' reflex as ʔ[j]ó-ʔwe.

[2] The absence of glottalization in *j* and *w* in the Iyo'awujwa' reflex must be a mistranscription on Gerzenstein's (1983) part.

Rejected: Viegas Barros (2013a: 307) lists Nivačle [ji]iʔ / -ʔiʔ 'to be vigorous, ripe' (Seelwische 2016: 139) under this etymology, an impossible comparison from a phonological point of view. Viegas Barros (2013a: 307) compares the Mataguayan root with Proto-Guaicuruan *-eji 'to become ripe, to bear fruit, to be ripe' (Viegas Barros 2013b, #199), which could be spurious.

Najlis 1984: 12 (*jɔ); Viegas Barros 2013a: 307 (*-juʔ)

***-ʔóʔthale(ʔ) ~ *-ʔóʔthále(ʔ) ‘heart’ [1] (ChW)**

PCh *-ʔóhtaleʔ ~ *-ʔóhtáleʔ > Ijw -ʔóstale [2], -ʔóstahl-aʔ; I'w -óhteleʔ ~ -óhtaleʔ, -óhtale-j; Mj -ʔóhteleʔ ~ -ʔóhtaleʔ(-l) (Drayson 2009: 156; Gerzenstein 1983: 154, 191; Carol 2018) • PW *-t-ʔtle > LB -t-ʔtle; Vej -t-ʔtle [3]; 'Wk -t-ʔtleʔ(-lis) (Nercesian 2014: 97; Viñas Urquiza 1974: 78; Claesson 2016: 99)

[1] This stem is likely derived from PM *-ʔóʔt ~ *-ʔóʔt 'chest'.

[2] The absence of a final glottal stop in Ijw -ʔóstale is unexpected.

[3] Gutiérrez & Osornio (2015: 61) document Vej -t-ʔtle, which could be a typo.

Rejected: Najlis (1984: 42) includes Ni -tiʔʔte 'heart' under this etymology, but this is absolutely impossible for phonological reasons.

Najlis 1984: 42 (*tʔwtle)

10.9 Wichí and Iyojwa'aja'

The etymologies listed in this section have a very restricted distribution, limited to Wichí and the Iyojwa'aja' variety of Chorote. It is highly likely that in most or all of these cases, Iyojwa'aja' borrowed from Wichí (and in a couple of cases, it is probable that both Iyojwa'aja' and Wichí borrowed from a common third source). In fact, it is often possible to show that such loans replaced Proto-Chorote terms with a *bona fide* Mataguyan etymology (PCh **ʔisáh* or **ʔisáh* 'sand', **k'ús-APPL* 'to be hot', **k'újʔ* 'cold', **núʔuh* 'dog', **ʔah-wúʔ* 'woman' vs. Ijw *hóloʔ*, *k'óʔjo*, *tétʔah-aʔ*, *ʔaléna*, *ʔaséhn'aʔ*). The fact that in most cases Iyojwa'aja' and Wichí terms display regular sound correspondences is hardly surprising given that the correspondences are largely trivial.

Ijw [j]éhwut /-áhwut/ 'to fan, to blow' (Drayson 2009: 159)

← PW *[j]áx^wut / *[j]áx^w(u)t-APPL 'to blow' > LB [j]af^wit [1]; Guisnay *j-ah^wt^{-hi}-tah*, *j-ah^wt^{-hi}-ta-s* 'wind'; 'Wk [j]áx^w(u)t-APPL, *j-ax^wt^{-hi}-tax* 'North; north wind' (Braunstein 2009: 62; Gutiérrez & Osornio 2015: 44; Claesson 2016: 524–525)

[1] Lower Bermejeño unexpectedly reflects PW **u* as *i* rather than *e* here.

Ijw -éliʔ /-íle/ 'bone' (Drayson 2009: 130)

← PW *-*t-íle* (*-*j^h*) 'bone, branch' > LB *-t-ile*; Vej *-t-ile* (-*j*); 'Wk *-t-ile* (-*ç*) (Nercesian 2014: 348; Viñas Urquiza 1974: 66; Claesson 2016: 75)

Najlis 1984: 36 (**ele*)

Ijw -ép /-íp/ 'side' (Drayson 2009: 130)

← PW *-*t-íp* (*-*ej^h*) 'side, part' > LB *-t-ip* (-*ej*); Vej *-t-ip* 'some, few'; 'Wk *-t-íp* (-*eç*) (Nercesian 2014: 213, 414; Viñas Urquiza 1974: 66; Gutiérrez & Osornio 2015: 8, 9; Claesson 2016: 75)

Najlis 1984: 17 (2 **a-ep*)

Ijw hóloʔ /hólo/ 'sand' (Drayson 2009: 128)

← PW **hólo* > LB *hulu*; Vej *holo-tah*; 'Wk *hóloʔ* (-*lis*) (Nercesian 2014: 161; Viñas Urquiza 1974: 57; Gutiérrez & Osornio 2015: 43; Claesson 2016: 152)

Najlis 1984: 33 (**hnolo*); Viegas Barros 2002: 144 (**çolo*)

Ijw hwaté'n /hwatén/ 'sachapera (*Acanthosyris falcata*)' (Drayson 2009: 133)

← PW **x^witén* > LB *f^wiçten* ~ *f^wisten* [1]; Southeastern (Salta) *f^witen*; 'Wk *x^witép* 'kind of wild fruit', *x^witép-tax* 'sachapera' (Spagarino 2008: 60; Suárez 2014: 334; Claesson 2016: 171)

[1] The Lower Bermejeño reflex is irregular.

Ijw hwék-hwék /hwík-hwik/ 'red-billed scythebill' (Drayson 2009: 133)

← PW **wíq-wiq* > LB *wiq-wiq*; 'Wk *wik-wik-tax* (Spagarino et al. 2013 [2011]; Claesson 2016: 485)

Ijw hwétina, hwétihna-s /hwítenah/ 'firefly' (Drayson 2009: 133)

← PW **x^wítânax*, **x^wítânha-s* > LB *f^witonax*; 'Wk *x^wítânax*, *x^wítâna-s* (Braunstein 2009: 43; Claesson 2016: 170)

Najlis 1984: 42 (**hwethna*); Viegas Barros 2002: 144 (**x^wetenax*)

Ijw [ʔi]hwi'n-i /-hwé'n-i /-hwín+ʔeh/ 'to braid' (Drayson 2009: 100)

← PW *[ʔi]*x^win* > (?) LB *-f^win-aχ* 'line'; Vej *-h^win* 'to line up'; 'Wk [ʔi]*x^wiŋ* 'to interweave, to intertwine' (Braunstein 2009: 43; Viñas Urquiza 1974: 59; Claesson 2016: 170)

Ijw [j]ími'n /-émi'n /-ímin/ 'to love' (Drayson 2009: 159)

← PW *[j]*húmin* > LB [j]*hemin*; Vej *-humín*; 'Wk [ja]*húmiŋ* (Nercesian 2014: 308; Viñas Urquiza 1974: 58; Claesson 2016: 156)

Najlis 1984: 10, 40 (**hmi*)

Ijw [j]íp'is /-ép'is /-íp'is/ 'to be full, satisfied' (Drayson 2009: 160)

← PW *[j]*íp'is* > LB [j]*íp'is* (Nercesian 2014: 49)

Ijw [j]íxsit /-éxsit /-ísit/ 'to cut' (Drayson 2009: 160)

← PW *[j]*ísit* [?] *[j]*íset* / *[j]*íst-* [1] > LB [j]*íset* / [j]*íst-*; Vej [j]*ísit*; 'Wk [j]*ísit* / [j]*íst-* (Nercesian 2014: 234, 406; Viñas Urquiza 1974: 84; Claesson 2016: 548)

[1] The Lower Bermejeño form points to PW *[j]*íset*; Vejoz and 'Weenhayek to *[j]*ísit*.

Ijw kaláp'i<t'e>, kaláp'i<t'eh>-es /kaláp'i<tah>/ 'plumbeous ibis' (Drayson 2009: 134)

← PW **qalá(q)p'ih* [1] > LB *qaláqp'i*; 'Wk *qaláp'ih* (Spagarino et al. 2013 [2011]; Claesson 2016: 307)

[1] The Lower Bermejeño form points to PW **-qp'*- and 'Weenhayek to **-p'*-.

Ijw [ʔi]sí'm /-kí'm /-k'ím/ 'to be thirsty' (Drayson 2009: 112)

← PW *[ʔi]*k'ím* > LB [ʔi]*tʃim*; 'Wk [ʔi]*k'íŋ* (Nercesian 2014: 108; Braunstein 2009: 86; Claesson 2016: 191)

Possibly related to Proto-Guaicuruan **-ák'ip* 'thirst' (Viegas Barros 2013b, #23).

Ijw k'ó'jo /k'óʔjoh/ 'hot' (Drayson 2009: 136)

← PW **k'ájo* > LB [ni]*tʃaju*; Vej *tʃajo*; 'Wk *k'ájo?* (Nercesian 2014: 217; Viñas Urquiza 1974: 52; Claesson 2016: 185)

Ijw páhnaʔ /páhnâ/ 'pepper' (Drayson 2009: 143)

← PW **pánhân* > LB *poŋon*; Vej *pánân* [1]; 'Wk *páŋaŋ* (Spagarino 2008: 60; Nercesian 2014: 197; Viñas Urquiza 1974: 70; Claesson 2016: 285)

[1] The voiced *n* in Viñas Urquiza's (1974) attestation of the Vejoz reflex must be a mistranscription.

Rejected: Najlis (1984: 17, 49) includes Ni *ojintfe* (-j) (Seelwische 2016: 208), but there are no regular correspondences between Nivaçle and the other languages.

Najlis 1984: 17, 49 (**pâ-ahn-âjn*)

Ijw *palak* /pálak/ ‘brown cachalote (*Pseudoseisura lophotes*)’ (Drayson 2009: 143)

← PW *pálaχ ~ *pálaχ ~ *páláχ > LB *pulaχ* [1]; Vejoz or Guisnay *pálah* ‘hoopoe’ [2] (Spagarino 2008: 60; Nercesian 2014: 197; Viñas Urquiza 1974: 70; Claesson 2016: 285)

[1] The vowel of the first syllable is reflected irregularly in Lower Bermejeño Wichí as *u*, a development also seen in LB *putsax* ‘jabiru’.

[2] The gloss ‘hoopoe’ (Spanish ‘abubilla’) in Lunt (2016) is obviously incorrect, since hoopoes are not natively found in South America.

Ijw *póp* /pop/ ‘eared dove’ (Drayson 2009: 144)

← PW *póp > LB *pup*; Vej *pop*; ’Wk *póp* (Nercesian 2014: 157; Gutiérrez & Osornio 2015: 22; Claesson 2016: 295)

Ijw *-sát (-is)* /-sat/ ‘foot’ (Drayson 2009: 125)

← PW **-sat* ‘heel’ > Vej *-sat* ‘heel’; ’Wk *-sát*, *-sát-aç* ‘tendon, heel’ [1] (Viñas Urquiza 1974: 72; Claesson 2016: 90)

[1] Weenhayek shows contamination of PW **-sat* ‘heel’ and **-sát* ‘tendon’, which has resulted in a polysemic noun *-sát* ‘tendon, heel’.

Ijw *tétfah-a?* [1] ‘cold’ (Drayson 2009: 149)

← PW *ték^háχ > LB [ni]tetfoχ(-tfe/=hi); Vej *-tetfah-tfe*; ’Wk *ték^háx* (Nercesian 2014: 283; Viñas Urquiza 1974: 75; Claesson 2016: 392)

[1] *tf* is not a native phoneme of Iyojwa’aja’.

Ijw *tihwána* /t^hwánah/ ‘Molina’s hog-nosed skunk’ (Drayson 2009: 150)

← PW *túx^wanaχ > Vejoz or Guisnay *tuhwanah* ~ *tuhwenah*; ’Wk *túx^wanax* (Lunt 2016: 90; Claesson 2016: 420)

Ijw *sihnát* /s^hhnát/ ‘knife’ (Carol 2014a: 99; Drayson 2009: 145)

← PW **tsonhat* > Vej *tsonat*; ’Wk *tsoṇat*, *tsoṇát-es* (Viñas Urquiza 1974: 55; Claesson 2016: 466)

[1] The voiced *n* in Viñas Urquiza’s (1974) attestation of the Vejoz reflex must be a mistranscription.

Ijw *wóna wúmki-na* /wónah wúmki^v-nah/ ‘crane hawk (*Geranospiza caerulescens*)’ (Drayson 2009: 157)

← PW *wó^hnah wúmeq [1] > LB *wu^hna wemek*; Vejoz or Guisnay *wo^hna wumek*; ’Wk *wó^hna-wumek* (Spagarino et al. 2013 [2011]; Lunt 2016: 105; Claesson 2016: 488)

[1] In Wichí, this is a transparent compound of PW *wó^hnah ‘bala wasp (*Polybia ruficeps*) honey(comb); hat’ and **-wúmeq*, *-wumh-aj^h* ‘old’.

Ijw *-^hwúk*, *-^hwúk-i^h!* /-ʔwúk/ ‘house’ (Carol 2014a: 96; Drayson 2009: 128)

← PW **-wúk^w*, **-wuh-uj^h* ‘owner’ > LB *-wek^w*, *-wehe-j*; Vej *-wuk*, *-wuh-uj*; ’Wk *-wuk*, *-wuh-uç*; **-wúk^w-e* (**-j^h*) ‘house’ > LB *-wek^w-e*; Vej *-wuk^(w)-e*; ’Wk

-*wúk-e?*(-ç) (Nercesian 2014: 192; Braunstein 2009: 61; Viñas Urquiza 1974: 82; Gutiérrez & Osornio 2015: 152; Claesson 2016: 103)

Ijw *ʔahwijeta, ʔahwihjeta- /ahwihatah/ 'mojarra fish (*Cheirodon interruptus*)'* (Carol 2014a: 91; Drayson 2009: 94)

← PW **ʔáx^wetaχ* > Vej *ahwetah* (Lunt 2016: 15)

Ijw *ʔaléna (-s) /alínah/ [1] 'dog'* (Carol 2014a: 999; Drayson 2009: 94)

Possibly borrowed from a source identical or close to that of PW **ʔasínáχ*, **ʔasínhá-s* > LB *ʔasinoχ*, *ʔasiño-s*; Vej *asináh*, *asiñá-s*; 'Wk *ʔasínáχ*, *ʔasiñá-s* (Nercesian 2014: 191; Gutiérrez & Osornio 2015: 20; Claesson 2016: 15).

[1] The absence of palatalization in Ijw *-n-* in this word is synchronically irregular.

[2] Viñas Urquiza (1974: 51) documents *asinah*, which must be a mistranscription.

Ijw *ʔaséhn'a? /asihn'a/ 'woman'* (Carol 2014a: 91; Drayson 2009: 94)

← PW **ʔatsínha* (*-j^h) [1] > LB *ʔatsiña (-j)*; Vej *atsiña* [2]; 'Wk *ʔatsiña?* (-ç) (Nercesian 2014: 285, 303; Gutiérrez & Osornio 2015: 29; Claesson 2016: 18)

[1] The Wichí noun itself is likely derived from **ʔásnaq* (if from **ʔátsinak*, vocalic stem **ʔátsinsha-*) > LB *ʔasnaq* 'male' (Nercesian 2014: 197).

[2] Viñas Urquiza (1974: 50) documents *atsina*, which must be a mistranscription.

Ijw *ʔáxse'ni (-wa) /áse'nih/ 'guira cuckoo'* (Drayson 2009: 94)

← PW **hátse'nih* > LB *hotse'ni*; 'Wk *hátsa'nih* ~ *hátse'nih* [1] (Spagarino et al. 2013 [2011]; Claesson 2016: 139)

[1] The variant *hátsa'nih* in 'Weenhayek is irregular.

Rejected: I'w *áxsina (-s)*, Mj *ʔáxsena (-s)* 'quebracho crested tinamou' (Gerzenstein 1983: 124; Carol 2018) must be unrelated, despite apparent formal similarity. The only thing guira cuckoos and quebracho crested tinamous have in common is that both species are crested, but otherwise these birds are quite different.

Ijw *ʔip'áta /ip'átah/ (Drayson 2009: 109)*

← PW **ʔixpát* > Vej *ihpat (-ʔajis)*; 'Wk *ʔixpát* (Viñas Urquiza 1974: 60; Gutiérrez & Osornio 2015: 18; Claesson 2016: 24)

Najlis 1984: 9, 26 (**iphátha*)

Ijw *ʔis'á'ni (-wa) /is'á'nih/ 'narrow-billed woodcreeper'* (Drayson 2009: 111)

← PW **x^witsá'nih* > LB *f^witso'ni*; 'Wk *x^witsá'nih* (Spagarino et al. 2013 [2011]; Claesson 2016: 171)

Ijw *ʔóhna? /óhna/ 'sachasandía (*Capparis salicifolia*) fruit'; ʔóhna-k /óhna-k/ 'sachasandía (*Capparis salicifolia*) tree'* (Drayson 2009: 142)

← PW **ʔónhá?*; **ʔónha-q* ~ **ʔónha-k^w* [1] > LB *ʔuṇa-q*; Vej *oṇa-j* 'sachapera', *oṇa-tile* 'sachasandía'; 'Wk *ʔóṇa?*; *ʔóṇa-k* (Spagarino 2008: 61; Nercesian 2014: 348; Gutiérrez & Osornio 2015: 18; Claesson 2016: 46)

[1] LB *ʔuṇa-q* points to PW **ʔónha-q*, 'Wk *ʔóṇa-k* to **ʔónha-k^w*.

Rejected: Maká *inhek* ‘vinal (*Prosopis ruscifolia*)’ (Gerzenstein 1983: 202) cannot be related, as Mk *i* cannot correspond to PW **o*.

10.10 Possible borrowings and Wanderwörter

The etymologies listed in this section show too irregular correspondences to allow for a reconstruction of a Proto-Mataguayan etymon. In some cases, evidence from neighboring languages suggests that horizontal transmission, as opposed to cognation, may account for the similarity between the forms.

‘to help’:

Mk *[ji]fen* (Gerzenstein 1999: 173) • Ni *[j]eφen / -?eφen* (Seelwische 2016: 123)

‘seven- or nine-banded armadillo’:

Ni *βokotsex*, *βokotse-s* ‘seven-banded armadillo’ (Seelwische 2016: 364; Campbell et al. 2020: 131) • PW **x^wóq(?)atsax* > LB *f^wuq’atsax*; Vej *h^wok’átsah* [1]; ‘Wk *x^wóq(?)atsax* ‘nine-banded armadillo’ (Nercesian 2014: 231; Viñas Urquiza 1974: 59; Claesson 2016: 174)

[1] Vej *h^wok’átsah* (Viñas Urquiza 1974: 59) is likely a mistranscription for *h^wok’atsah*.

Nivačle points to **wóqotsex* and Wichí to **φóq(?)atsex*.

Najlis 1984: 13 (**hwóqotsha* ~ **wóqotsha*); Viegas Barros 2002: 144 (**x^woqotsax*)

‘Azara’s capuchin (*Sapajus cay paraguayanus*)’:

Mk *k’ateni* (Gerzenstein 1999: 235) • PW **háta’nih* [?] ~ **háta’nih* [1] > LB *hoto’ni*; Vejoz or Guisnay *háta’ni*; ‘Wk *háta’nih*, *háta’ni-lis* [4] (Mendoza & Merino 2019; Lunt 2016: 36; Viñas Urquiza 1974: 59, 63; Claesson 2016: 138)

[1] Different Wichí dialects point to different root-medial vowels: ‘Weenhayek suggests the reconstruction **háta’nih*, which matches the Maká form somewhat better, whereas other varieties point to **háta’nih*.

Viegas Barros 2002: 146 (**k’Atani* ~ **χAtani*)

‘bare-faced curassow (*Crax fasciolata*)’:

Mk *hehe* (Braunstein 1987: 58) • Ni *xexe* (-*k*) (Seelwische 2016: 148)

‘yica bag’:

PCh **-hílij?* ~ **-híluj?* (*-*is*) > Ijw <*hl>éli?* (-*jis*); I’w *-éli?* (-*jis*); Mj 3 *hl-élij?* (Drayson 2009: 130; Gerzenstein 1983: 126; Hunt 1994) • PW *(-)*hílu* (*-*lis*) > LB *hele* (-*lis*); Vej *-hílu*; ‘Wk *hílu?* (-*lis*) (Nercesian 2014: 191; Viñas Urquiza 1974: 57; Claesson 2016: 150)

Najlis 1984: 33 (**hnelu*)

‘tapir’:

Ni *jiʔjekle* (-k) • PW **xjéʔlah* > LB *jeʔla* (-lis); ʔWk *ʔijéʔlah* (Nercesian 2014: 191; Claesson 2016: 43)

‘fly’ / ‘mosquito’:

Ni *ʔaɸ-katax*, *ʔaɸ-kata-s* ‘fly’, *ɸisin-katax*, *ɸisin-kata-s* ‘gnat’ (Seelwische 2016: 134, 162) • PCh **qatá-ke?* ~ **qáta-ke?* (*-j^h) [1] > Ijw *káta-ki?* [2]; Iʔw *katáki?* (-ji); Mj *katáki?* (-j); cf. also Ijw *hatakʔi* [3] ‘mosquito’ (Carol 2014a: 91, fn. 22; Drayson 2009: 118, 134; Gerzenstein 1983: 137; Carol 2018) • PW **qʔataq* ~ **ʔataq* [4] ‘fly’ > LB *ʔataq*; Vej *kʔatak*; ʔWk *qʔataq*; **xʔinataq* ‘gnat, mosquito’ > LB *fʔinataq*; Vej *hʔinataq*; ʔWk *xʔunátaq* [4] (Braunstein 2009: 38, 43; Nercesian 2014: 47; Viñas Urquiza 1974: 59, 63; Claesson 2016: 322)

[1] Iyojwaʔajaʔ points to PCh **qáta-ke?*, and the other varieties to **qatá-ke?*, suggesting that these terms are not necessarily inherited from Proto-Chorote.

[2] This is mistranscribed as *káta-ki* (-ʔ) in Drayson (2009: 134).

[3] Ijw *hatakʔi* is attested only in Drayson (2009) but is absent from our corpus, making it impossible for us to decide which syllable is stressed in this noun.

[4] Lower Bermejeño points to PW **ʔataq*, and the other varieties to **qʔataq*, suggesting that these terms are not necessarily inherited from Proto-Wichí.

[5] ʔWeenhayek *u* is not the regular reflex of PW **i*.

Rejected: Campbell & Grondona (2007: 15) also include Maká *qaxtets* (-its) ‘horsefly’ (Gerzenstein 1999: 305), which is hardly related.

Najlis 1984: 23,34 (**qataq* ‘fly’, **hwinhnatha* ‘mosquito’); Campbell & Grondona 2007: 15

‘ray (fish)’:

Mk *kʔejeki?* (-l) (Gerzenstein 1999: 236) • Ni *kʔijejke* (-k) (Seelwische 2016: 228)

‘smooth-billed ani (*Crotophaga ani*)’:

Ni *kʔonxa?* (Campbell et al. 2020: 118) • PW **kʔinhâ* ~ **kʔinhâ* ~ **kʔinhá* > LB *tfʔiño* (Spagarino et al. 2013 [2011])

‘black-legged seriema (*Chunga burmeisteri*)’:

Ijw *nókʔu* (-s) [1]; Iʔw *ohónʔukʔu?* ~ *ohónʔukʔuh* (-us) ‘red-legged seriema’ [1]; Mj *hón(i)ʔi* ~ *hóniʔu*, *hónʔi-is* [1] (Drayson 2009: 141; Gerzenstein 1983: 153, 194; Carol 2018) • PW **nikʔu* > LB *netʔe*; ʔWk *ʔinikʔu?* (Nercesian 2014: 170; Claesson 2016: 32)

[1] Iyojwaʔajaʔ points to PCh **núkʔuh*, Iyoʔawujwaʔ to **uhúnjukuh* ~ **uhúnjuku?*, and Manjui to **húnkʔuh*, suggesting that these terms are not necessarily inherited from Proto-Chorote. It is admittedly possible to reconstruct a PChW form similar to **Xúnjukʔuh* or maybe **Xunjúkʔuh*, but in this case it is not clear how to reconstruct the hypothetical PCh form.

‘sweet potato’ (MN) / ‘manioc’ (W):

Mk *pexexe?*; *pexexe-k*, *pexexe-ket* (Gerzenstein 1999: 295) • Ni *pexaja* (-k); *pexaja-juk*, *pexaja-ku-j* (Seelwische 2016: 218) • PW **piʔjók^w* > ʼWk *piʔjók* (Claesson 2016: 292)

The Maká and Nivačle forms cannot be cognate because the expected reflex of PM **e* before a uvular is Maká *a*, not *e*. Viegas Barros (2013a: 300) and Fabre (2014: 307) note the similarity with Proto-Guaicuruan **pijoko* ‘manioc’ (Viegas Barros 2013b, #487), Ayoreo *peheei* ‘manioc’, and the Enlhet–Enenlhet term for ‘sweet potato’ – Enlhet, Angaité *peheja?*, Enxet *pehe:je* ~ *peheje?* ~ *pehe?*, Enenlhet–Toba, Sanapaná, Guaná *peja?* ‘sweet potato’ (Unruh & Kalisch 1997: 549; Unruh et al. 2003: 334; Wheeler 2020: 48; Elliott 2021: 33, 97, 730; Kalisch 2023: 180) – which is attributed to language contact. Of these, the ʼWeenhayek word is most similar to the Guaicuruan forms, whereas Maká and Nivačle display more similarity with the data of Ayoreo and Enlhet–Enenlhet languages.

Rejected: Najlis (1984: 38) derives Ni *pexaja* from PM **pewhla*, which is claimed to be the etymon of Chorote *hwélʼe-tʼo* ‘potato’ (a reflex of PM **philâ(ʼ)X₁₂* in our account), Ni *seklâx* ‘*sutia* fruit (*Solanaceae*)’ (a reflex of PM **xélâX₁₂* in our account), and Wichí *weltsitax* ‘tobacco (in old times)’, a term we were unable to locate in other published sources on Wichí.

Viegas Barros 2002: 145; Viegas Barros 2013a: 300

‘kind of jay (*Cyanocorax* sp.)’:

Mk *qolom-qolom* (-its) ‘a kind of jay larger than the plush-crested jay (*Cyanocorax chrysops*); makes elongated hanging nests’ (Braunstein 1987: 64; Gerzenstein 1999: 233) • Ni *koklop* (-is) ‘kind of a black weaving bird’; *koklop-itax*, *koklop-ita-s* ‘purplish jay (*Cyanocorax cyanomelas*)’ (Seelwische 2016: 70; Campbell et al. 2020: 506)

‘cane (*Arundo donax*)’:

Ni *sise* (-k) (Seelwische 2016: 233) • Ijw *siséh* (-ʔl); Iʼw *sisé* (-jis ~ -hes) [1]; Mj *fiséh* (-k) [1] (Drayson 2009: 146; Gerzenstein 1983: 159; Carol 2018)

[1] The plural forms attested in Iyoʼawujwaʼ and Manjui do not match the Iyojwaʼajaʼ and Nivačle data (nor do they match each other).

The Chorote form is likely a recent Nivačle loan, as suggested by the fact that the vowel *i* in the first syllable fails to trigger the first and the second palatalizations, as well as by the Manjui plural form.

Najlis 1984: 41 (**s-sɛ*)

‘spider’:

Mk *siʔwalaχ* (-its) (Gerzenstein 1999: 327; UNICEF & Tekomboʼe ha Tembi-kuaa Motenondeha 2022: 15) • Ni *sibâklâk*, *sibâklâkl-is* (Seelwische 2016: 233–234) • PCh **sʷálâk*, **sʷálâq-is* > Ijw *siwâlak*; Iʼw *siwâlak* ~ *fiwâlak* (-es); Mj *fiwâlak* (-is) (Drayson 2009: 146; Gerzenstein 1983: 21, 159; Carol 2018)

10.10 Possible borrowings and Wanderwörter

Based on the Nivačle and Chorote forms, it could be possible to reconstruct PM **siwálâq*, but the Maká form cannot be derived from this reconstruction. The discrepancy in the final consonant suggests independent borrowings from a source close to Enlhet *sawa:lak*, Enxet *sawa:laq*, Sanapaná *sewa:lak*, Guaná *sewalaq* ‘spider’ (Unruh & Kalisch 1997: 595; Wheeler 2020: 92; Elliott 2021: 33; Kalisch 2023: 184), as suggested by Fabre (2014: 307) for Enlhet.

Najlis 1984: 41 (**s-wálâk*); Viegas Barros 2002: 146; Campbell & Grondona 2007: 21; Gutiérrez 2015b: 253

‘fish, *sábaló* fish’:

Mk *sehets* (Gerzenstein 1999: 323; UNICEF & Tekombo’e ha Tembikuaa Motenondeha 2022: 5) • Ni *saxetf* (Seelwische 2016: 229) • PCh **sik’ús* > Ijw *siʔjús*; I’w *sijús* [1] ‘fish’; Mj *fiʔjús* ~ *fi’jús* (Carol 2014a: 90; Drayson 2009: 147; Gerzenstein 1983: 158; Carol 2018) • PW **sik’ús* ‘*sábaló* fish’ > Guisnay *sitf’us*; ’Wk *sik^j’ús* (*-łajis*) (Lunt 2016: 78; Gutiérrez & Osornio 2015: 22; Claesson 2016: 329)

[1] The seemingly plain *j* in Iyo’awujwa’ could be a mistranscription on Gerzenstein’s (1983) part.

Based on the Chorote and Wichí forms, it could be possible to reconstruct PM **sik’ú(t)s*, but the Maká and Nivačle forms cannot be derived from this reconstruction.

Najlis 1984: 43 (**scutsh*); Viegas Barros 2002: 144 (**saxets*)

‘*anco* squash’:

Mk *ko:sinheʔ(-j)* (Gerzenstein 1999: 232) • Ni *sinxeja-tax*, *sinxeja-ta-s* (Seelwische 2016: 232) • Ijw *ʔósin’e*, *ʔósin-i-s*; I’w *sihnájeʔ*; Mj *fihnájeʔ* ‘*andaí* squash’ (Drayson 2009: 142; Gerzenstein 1983: 159; Carol 2018) • PW **ʔúsenha* (**-j^h*) > ’Wk *ʔúseṇaʔ(-ç)* (Gutiérrez & Osornio 2015: 19; Claesson 2016: 46)

Maká points to PM **koosenhaʔ* or **koosinhaʔ*; Nivačle to **sinhejaʔ(?)*; Iyojwa’aja’ to **ʔúsenah* or **ʔúsinah*; Iyo’awujwa’ and Manjui to **senhájaʔ(?)* or **senhájaʔ(?)* (though the failure of **n* to palatalize would remain unexplained); Wichí to **ʔúsenhaʔ(?)*. Fabre (2014) suggests that these are independent borrowings from a source close to Enlhet *semhejaʔ*, Enenlhet-Toba, Angaité, Guaná *semhejaʔ* (Unruh & Kalisch 1997: 604; Unruh et al. 2003: 336; Wheeler 2020: 38; Kalisch 2023: 184).

Rejected: Najlis (1984: 26, 31) includes Vejoz *amjo-tah* ‘*anco* squash’ (Viñas Urquiza 1974: 50; Gutiérrez & Osornio 2015: 17) into the comparison, but this is impossible for phonological reasons.

Najlis 1984: 26, 31 (**(çtsh)ajhmetha*)

‘wax’ [1]:

Ni *-sup’ax* (*-is*) (Seelwische 2016: 237) • PW **sóp’a* > Vej *sóp’a*; ’Wk *sóp’aʔ*, *sóp’l-is*; **[ʔi]sóp’a-n* ‘to stick’ > LB *sup’aṇ-i* ‘stew’; Vej *sóp’aṇ-i* ‘paste’; ’Wk *[ʔi]sóp’aṇ* (Nercesian 2014: 310; Viñas Urquiza 1974: 73; Claesson 2016: 330)

[1] Najlis (1984: 18) adds Chorote *só?pa* ‘wax’ to the comparison. We have been unable to identify any similar word either in our corpus or in published works.

Najlis 1984: 18 (**sɔwp’a*)

‘**moro bee honey(comb)**’:

Ni (-)*fnakuβax* (-is) (Seelwische 2016: 243) • PCh **nákowo?* ~ **nákuwo?* > Ijw *nákiwo?* [1]; I’w *nákiwo?* (-I) (Carol 2014a: 79; Drayson 2009: 140; Gerzenstein 1983: 149) • LB *naquwu-tax* (Braunstein 2009: 52)

[1] This is mistranscribed as *nákiwo* in Drayson (2009: 40).

Najlis 1984: 34, 42 (**hnawko(tha)*); Campbell & Grondona 2007: 15

‘**pacu fish**’:

PCh **taqám* > Ijw *taká’m* (-is); I’w *takám* (-is) (Drayson 2009: 148; Gerzenstein 1983: 162) • PW **ták’am* > Guisnay *tatfam*; ’Wk *ták’añ* [1] (Lunt 2016: 80; Claesson 2016: 363)

[1] The glottalization of the root-medial consonant in the ’Weenhayek reflex is unexpected.

The Chorote form can only go back to **taqam* or **taqám*, the Wichí one to **tákam*.

Campbell & Grondona 2007: 17

‘**garabato (*Acacia praecox*)**’:

Mk *t’okonok* (Gerzenstein 1999: 346) • PCh **kútunuk* > Ijw *k’út(’)un’uk* ~ *k’útinik* ~ *k’útunuk*; I’w *k’út’junuk* ~ *k’útanuk*; Mj *k’útenek* ~ *k’útunuk* ~ *k’útanuk* ~ *k’útanek*, *k’útenki-j* (Drayson 2009: 137; Carol 2018) • PW **hú-tunuk*^w [1] > LB *hetenek*^w (Spagarino 2008: 63; Suárez 2014: 269)

[1] Suárez (2014: 269) documents the forms *hutunuk*, *hutunek*^w, and *hetenek*^w in Wichí, without specifying the respective dialects.

‘**salt**’:

Ni ChL *tsiφoni* (-k) (Seelwische 2016: 295) • Ijw *sihwón’è?*; I’w *sif’óni?* (-I); Mj *fihwóni?* ~ *fihwóne?* (Carol 2014a: 100; Drayson 2009: 145; Gerzenstein 1983: 158; Carol 2018)

Seelwische (2016: 295) states that the Nivaçle word is a Chorote loan. However, the Chorote word itself does not look native, as in Iyojwa’aja’ [nⁱ] does not normally occur following a non-high vowel /o/ (unless the underlying representation is /s^hwójna/). The term in question could be related to PM **tsóφα* ‘*Maytenus vitis-idaea*’ (whose ashes are used for making salt) via indirect borrowing by means of unidentified languages.

‘**roseate spoonbill**’:

Ni *tsinłetsex*, *tsinłetse-s* (Seelwische 2016: 295) • PCh **kin(al)Vсах* > Ijw *kin’élisa*; Mj *kinife* (Gerzenstein 1979: 38; Drayson 2009: 136; Carol 2018) • PW **niletsax* > LB *niletsax*; ’Wk *niletsax*, *niletsa-s* (Nercesian 2014: 170; Claesson 2016: 269)

The correspondences are too irregular to consider the aforementioned terms cognate. Nivačle points to **tsinʎetseχ*, Chorote to **kin(a)ʎVtseχ*, and Wichí to **nʎletseχ*.

Najlis 1984: 46 (**cihnilitsha*); Viegas Barros 2002: 144 (**kinetitsaχ*)

‘dorado fish’:

Mk *tsiwanaq* (-its) (Gerzenstein 1999: 349; UNICEF & Tekombo’e ha Tembi-kuaa Motenondeha 2022: 5; Braunstein 1987: 68) • Ni *siβānāk*, *siβānākʎ-is* (Seelwische 2016: 234)

Obviously related to Proto-Guaicuruan **ats’iwanaqa* ‘dorado fish’ (Viegas Barros 2013b, #143).

Note that Maká *ts* cannot regularly correspond to Nivačle *s*.

Campbell & Grondona 2007: 22

‘tinamou’:

Mk *wextsoxoxo* (-l) ‘solitary tinamou (*Tinamus solitarius*); red-winged tinamou (*Rhynchotus rufescens*); elegant crested tinamou (*Eudromia elegans*)’ (Gerzenstein 1999: 371; Braunstein 1987: 54) • Ni *tfoxoxo* (-xis) ‘red-winged tinamou (*Rhynchotus rufescens*)’ (Seelwische 2016: 108)

‘a Chacoan game; stick used in that game’:

Mk *-tsuka?* (-l) (Gerzenstein 1999: 350) • Ni <tsukoc> (Nordenskiöld 1919: 157) • Mj *fúkʎe?* ‘the stick’, *fúkʎe-l* ‘the game’ (Carol 2018) • ’Wk *soka?* ~ *suka?*, *soká-lis* ~ *suká-lis* (Claesson 2016: 330)

A similar game is played by many other peoples of the Chaco (cf. Tapiete *fuka*, González 2005: 359), and is ultimately of Andean origin. Nordenskiöld (1919: 157) suggests that its name derives from Quechua *tfunka* ‘ten; a game of chance’.

‘white-barred piculet (*Picumnus cirratus*)’:

Mk *tsxini*(?)*n*, *tsxinin-its* (Gerzenstein 1999: 350) • Ni *tsini’ni* (-k) [1] (Seelwische 2016: 295; Campbell et al. 2020: 502) • Ijw *ʎéskini’ni* [?] *ʎéskini’ni* [1] (Drayson 2009: 96)

[1] The Iyojwa’aja’ term is not documented in our data, and Drayson (2009) does not distinguish between /i/ [e] and /e/ [ɛ], hence the uncertainty.

‘great antshrike (*Taraba major*)’:

Ni *ts’i’jokʎokʎo* (Campbell et al. 2020: 506) ~ *ts’ijoxokʎá* ~ *ts’ijokáklá* ~ *ts’ijokákló* (Seelwische 2016: 303) • PW **ts’ólo-taχ* > LB *ts’ulu-taχ*; ’Wk *ts’ólo-taχ* (Spagarino et al. 2013 [2011]; Claesson 2016: 470)

‘wood rail (*Aramides sp.*)’:

Mk *wuqa?a?* (-l) ‘giant wood rail (*Aramides ypecaha*)’ [1] (Gerzenstein 1999: 350) • Ni *βotāxāx* (-is) ‘chicken’; *βotāxāx-itax* ‘giant wood rail (*Aramides ypecaha*)’ (Campbell et al. 2020: 95) • I’w *wótaha* ‘chicken’; Mj [?]*wótaa* ‘chicken’

(Campbell & Grondona 2012: 345; Carol 2018) • LB *wutqaq* ‘grey-necked wood rail (*Aramides cajanea*)’; Vejoz or Guisnay *wotaqa* ‘giant wood rail (*Aramides ypecaha*)’ (Spagarino et al. 2013 [2011]; Lunt 2016: 105)

[1] The Maká form is documented as *wuq’aʔa*, with an ejective stop, in Braunstein (1987: 58). The Iyo’awujwa’ and Manjui forms are likely borrowed from Nivačle, but before word-initial glottalized sonorants were deglottalized. The relation between other forms is unclear. Compare also the Guachí term <wokaaké> ‘chicken’ (de Castelnau 1851: 280).

‘ibis sp.’:

Ni *βakâk(-is)* ‘plumbeous ibis (*Harpiprion caerulescens*)’ (Campbell et al. 2020: 504) • PW **woqâq* > LB *wuqaq* ‘black-faced ibis (*Theristicus melanopis*)’; ’Wk *woqâk* [1] (Spagarino et al. 2013 [2011]; Claesson 2016: 500)

[1] The stem-final velar stop (rather than uvular) in the ’Weenhayek reflex is unexpected.

‘catfish sp.’:

Ijw *ʔawânhleʔ* ‘*Pimelodus clarias*’; I’w *wânhle(-jis)* (Carol 2014a: 76; Drayson 2009: 95; Gerzenstein 1983: 168) • Vej *wahnoʔi* [1] (Viñas Urquiza 1974: 79)

[1] Lunt (2016) gives the form *wahnoʔâ* for Wichí, but does not indicate whether it is representative of Vejoz or Guisnay. In (Nercesian 2021), the form is given as <wajnuʔla> without any dialectal attribution; judging by the root-medial vowel, it could be representative of the Southeastern dialect, in which case it should be phonologized as *wâxnuʔla*.

Najlis 1984: 42 (**wahnhle*)

‘hail’:

Ni *xakʔlatu* (Campbell et al. 2020: 100) • PCh **ʔalátuʔ* > Ijw *ʔalátʔuʔ*; I’w *alátʔuʔ*; Mj *ʔalátʔsʔ* (Drayson 2009: 94; Gerzenstein 1983: 119; Carol 2018) • PW **qalátu* > ’Wk *qalátuʔ* (Claesson 2016: 307)

Based on the Nivačle and Chorote forms, it could be possible to reconstruct PM **halátuʔ*?, but the ’Weenhayek form cannot be derived from this reconstruction. Obviously related to Proto-Guaicuruan **qa(ʔ)latʔi* ‘hail’ (Viegas Barros 2013b, #513). The Lower Bermejeño form *qalati* (Nercesian 2021), in turn, is perhaps a late borrowing from the Qom languages.

Najlis 1984: 16 (**qalathu*); Viegas Barros 2002: 146; Viegas Barros 2013a: 312

‘spotted sorubim’:

Ijw *ʔaskʔúnʔeʔ*; I’w *askʔúnaʔ(-I)*; Mj *ʔalkʔúnaʔ* (Drayson 2009: 94; Gerzenstein 1983: 122, 221) • ’Wk *ʔaxʔúkʔaʔ(-lis)* (Claesson 2016: 10)

Campbell & Grondona 2007: 16 (‘suruví (fish)’)

‘marbled swamp eel’:

Ijw *ʔahjeʔ* [1]; Mj *ʔihnʔ(ʔ)éeʔ(-I)* (Drayson 2009: 93; Carol 2018) • PW **ʔijháʔ*(?) > LB *ʔiçáʔ*(?); ’Wk *ʔiçáʔ* (Braunstein 2009: 44; Claesson 2016: 45)

10.10 Possible borrowings and Wanderwörter

[1] The position of the stress in Ijw *?ahje?* is unknown to us.

The Iyojwa'aja' and Manjui forms cannot be cognate with each other, and neither of them corresponds to Wichí. The expected cognate of Wichí **?ijhá(?)* in Chorote would be PCh ***?ihjá?* > Ijw/I'w/Mj **?ihjé?*.

'clay'

Ijw *?isát*; I'w *isát*; Mj *?isát* (Drayson 2009: 110; Gerzenstein 1983: 131; Carol 2018) • PW **?ijhát* > LB *?içát*; Vej *inját* [1]; 'Wk *?içát*, *?içát-es* (Braunstein 2009: 44; Viñas Urquiza 1974: 60; Claesson 2016: 45)

[1] The sequence *nj* in the Vejoz form, as given by Viñas Urquiza (1974), must represent [ɲ], the realization of the underlying sequence /jh/ (where /j/ undergoes devoicing and nasalization). It is unclear whether the Chorote forms are even reconstructible to Proto-Chorote. Note that *i* of whichever origin is expected to induce progressive palatalization in coronals, unless it goes back to a Proto-Chorote low vowel, but PCh low vowels do not yield *i* in the word-initial position. That way, the Chorote form is best viewed as a Wichí borrowing.

Rejected: Najlis (1984: 11) includes Ni *?ajisxan* 'clay' into the comparison, which is hardly related.

Najlis 1984: 11 (**ihsá*)

'stone':

Mk *ute (-l)* (Gerzenstein 1999: 356) • Ni *?utex*, *?ute-s* (Seelwische 2016: 307)

Note that Maká *e* cannot regularly correspond to Nivačle *e*, and Maká zero cannot match Nivačle *x*.

11 Conclusion

In this book, we put forward a phonological reconstruction of Proto-Mataguayan, and show the main developments from the protolanguage to the daughter languages, including the intermediate protolanguages such as Proto-Wichí and Proto-Chorote. In addition, we compiled a short etymological dictionary, which contains several hundred lexical and morphological entries with Proto-Mataguayan reconstructed etyma and their reflexes in the daughter languages and dialects.

Regarding the consonantal system of Proto-Mataguayan, our study by and large supports Viegas Barros's (2002) findings, including the reconstruction of three "dorsal" fricatives (**x*, **χ*, **h*). We depart from previous reconstructions in positing **ϕ* instead of **x^w*, thus rendering the reconstructed inventory more symmetrical and accounting in an elegant way for the correspondence between Mk *f*' and Ni/PCh/PW (**p*'). We also find solid evidence for **ʔ* as a Proto-Mataguayan phoneme, supporting Gutiérrez & Nercesian's (2021) hypothesis. We reconstruct a glottalized counterpart for every plain supraglottal consonant except the dorsal fricatives. Although in many cases it is possible to derive them from underlying clusters of the shape **/Cʔ/*, there is evidence that **ʔl* and **ʔm* are phonologically different from **lʔ* and **mʔ* in Proto-Mataguayan as well as in the modern languages. Contrastive (pre)glottalization may also be reconstructed in the coda position, though in this case, too, it is possible to represent the preglottalized codas as sequences of the type **/ʔC/*, as proposed by Gutiérrez (2016c) for Nivaçle. There is evidence for tautosyllabic consonant clusters of the structure **/CX/* (where *X* stands for a velar, uvular, or glottal fricative), which have given rise to aspirated consonants in Wichí. Other types of tautosyllabic consonant clusters are reconstructed primarily based on evidence from Maká and Nivaçle. In general, our proposal differs from the extant reconstructions of Proto-Mataguayan consonants in that our reconstructed inventory is quite symmetrical, and in that the development of each phoneme in the daughter languages can now be accounted for without major exceptions or irregularities.

As for the vowels, alongside the six ones of previous reconstructions (**i*, **e*, **a*, **ã*, **o*, **u*) we posit a seventh vowel, **ä*. This putative vowel accounts for the correspondence between Ni *a* and Mk/PCh/PW **e*. We leave open the question whether it was a truly distinct phoneme in the protolanguage. At present, we

11 Conclusion

cannot discard the possibility that the instances of **ä* in our proposal should be reconstructed with **a* instead, though we are currently unable to formulate the environment where **a* would have yielded **e* in Proto-Chorote and Proto-Wichí.

Another novelty of our proposal is the reconstruction of the prosodic system of Proto-Mataguayan (Chapter 4), which has not been previously attempted. Our proposal is mainly based on evidence from Chorote, the 'Weenhayek dialect of Wichí, and Nivaçle (the evidence from the latter language is rather limited, however). There is also limited evidence from the Lower Bermejeño variety of Wichí and Nivaçle, which consists of a partial correlation between the position of the accent and deglottalization (loss of **ʔ* or preglottalization in codas). The precise nature of the Proto-Mataguayan accent is still far from clear. Phonetically, its reflexes include stress (in Chorote and Nivaçle) and vowel length ('Weenhayek).

We also describe the phonological innovations that characterize each Mataguayan language. Some of them are shared between two or three languages, providing grounds for establishing clades within Mataguayan, as detailed below.

There are multiple innovations shared by Wichí and Chorote, supporting the existence of a Chorote–Wichí clade within Mataguayan, as identified in our lexicostatistic survey (§1.1.5) and suggested in previous research (Fabre 2005, Campbell & Grondona 2007, Viegas Barros 2013a: 296). Among the processes exclusively shared by Chorote and Wichí are sound changes such as the merger of the three dorsal fricatives as **h* in simplex onsets and, with some provisos, in complex onsets (§8.1.1.4, §9.1.1.3); the glottal dissimilation (§8.1.1.8, §9.1.1.9); the merger of PM **ä* and **e* as **e* (§8.1.2.1, §9.1.2.1); the lowering of **i* to **e* in the environment **At/x...ts* (§8.1.2.3, §9.1.2.3), the lowering of **i* to **a* in the environment **j...C'Á* (§8.1.2.4, §9.1.2.4), and the rounding of **e* before clusters with a labial (§8.1.2.5, §9.1.2.5).¹ In previous studies, the similarities between Wichí and Chorote might have been somewhat exaggerated because Chorote was mostly represented by the better-known Iyojwa'aja' variety, known to have been in

¹The sound change PM **k(ʼ)* > PW **kʲ(ʼ)* in onsets (§9.1.1.2) is also closely paralleled by an analogous sound change in the Chorote varieties (§8.2.2.2, §8.2.2.5), but in Chorote this sound change must have taken place quite late, after the disintegration of the Chorote varieties and the so-called first palatalization (§8.2.1.1). Since Proto-Wichí split into dialects at a much later date than Proto-Chorote (§1.1.5), it is likely that the sound change **k(ʼ)* > **kʲ(ʼ)* in onsets was an areal one, and affected Proto-Wichí, pre-Iyojwa'aja' and Proto-Manjui–Iyo'awujwa' at some point between the 7th and 13th centuries. It is further conceivable that Enxet Sur (a language belonging to the geographically adjacent Enlhet–Enenlhet family), where one finds [c], [cʰ], or [kʰ] corresponding to [k] in the sister languages (Elliott 2021: 70–73), was also affected by the putative areal sound change. It is, however, also possible that **k(ʼ)* in onsets was simply articulated as a prevelar stop [kʰ] in the hypothetical Proto-Chorote–Wichí language, thus facilitating the independent development to **kʲ(ʼ)*.

close contact with Wichí since at least 1900 (see Chapter 10 for a list of possible borrowings from Wichí into Iyojwa'aja'). However, the number of cognates shared by Wichí and Chorote only, including the Manjui and Iyo'awujwa' variations, is still considerable, and the percentage of matches on the 110-item Swadesh list between Chorote (excluding Iyojwa'aja') and Wichí ranges between 50.50% and 55.77% (§1.1.5).

The position of Nivaçle is somewhat ambiguous. On the one hand, it shares some innovations with Maká but not with other languages, such as the merger of PM **ã* and **a* as Mk *e*, Ni *a* (§3.3, §6.2.1.2) and the glottal insertion in monosyllables (§6.1.7, §7.1.1.9). On the other hand, it shares some innovations with Chorote and Wichí but not with Maká, such as the fortition of the Proto-Mataguayan glottalized fricatives (phonologically possibly analyzable as tautosyllabic sequences of a fricative and a glottal stop) to glottalized stops, whereby PM **ɸ'*, **ɬ'* changed to (***)*p'*, (***)*t'* (§7.1.1.6, §8.1.1.10, §9.1.1.6), as well as the deaffrication of PM **ts* to (***)*s* in the coda position (§7.1.1.5, §8.1.1.1, §9.1.1.4). As of now, it appears impossible to decide whether Nivaçle is genetically closer to Maká, to Chorote–Wichí, or forms a clade on its own. Our lexicostatistic survey (§1.1.5) likewise allows for all three possibilities. Given the wide popularity of the hypothesis that Nivaçle is most closely related to Maká (Fabre 2005, Campbell & Grondona 2007, Viegas Barros 2013a: 296), we list Maká–Nivaçle cognates in a separate section in our etymological dictionary (Chapter 10), but it should be kept in mind that this clade is less well-supported than Chorote–Wichí.

At least two processes – the lowering of **e* to (***)*a* before the coda **χ* (§6.2.1.4, §8.1.2.2, §9.1.2.2) and the loss of **χ* after fricatives (§6.1.8, §8.1.1.12, §9.1.1.16) – are shared by Maká, Chorote, and Wichí to the exclusion of Nivaçle. These sound change must have occurred independently in Maká and Chorote–Wichí, since Maká is lexically distant from Chorote and especially Wichí.

As for the temporal depth of the family, a glottochronological assessment in §1.1.5 suggests that Proto-Mataguayan was likely spoken some 4,630–5,060 years before present, or 3,785–3,945 years before present if one considers that the low share of cognates between Maká and Wichí results from contact-induced vocabulary loss in one of these languages (or maybe in both) due to lexical borrowing from unknown sources. This temporal depth is comparable to that of protolanguages such as Proto-Jê.

Future studies will need to consider evidence from other domains, such as morphology and syntax, in order to arrive at a reliable subgrouping of the Mataguayan family, in particular with regard to the status of Nivaçle.

Finally, we hope that our reconstruction will prove helpful in establishing possible genetic links with other language families of South America through a com-

11 Conclusion

parison of reconstructed protolanguages between themselves. In particular, we consider that the possibility of a genetic relationship with Guaicuruan is very promising, in accordance with Viegas Barros (1993, 2013a). Other candidates for sister language families, even if very distantly related, include Zamucoan, Tupian, Macro-Jê, Bororoan, Cariban, Karirian, Yaathê, and Harakmbut–Katukina.

References

- Adelaar, Willem F. H. 2000. Propuesta de un nuevo vínculo genético entre dos grupos lingüísticos indígenas de la Amazonía occidental: Harakmbut y Katukina. In Luis Miranda Esquerre (ed.), *Actas del I Congreso de Lenguas Indígenas de Sudamérica*, 219–236. Lima: Universidad Ricardo Palma, Facultad de Lenguas Modernas, Departamento Académico de Humanidades.
- Adelaar, Willem F. H. 2008. Relações externas do Macro-Jê. O caso do Chiquitano. In Stella V. T. de A. P. L. Telles & Aldir Santos de Paula (eds.), *Topicalizando Macro-Jê*, 9–28. Recife: Nectar.
- Aguirre, Juan Francisco. 1793. *Diario del Capitán de Fragata de la Real Armada don Juan Francisco Aguirre en la demarcación de límites de España y Portugal en la América Meridional*. Asunción.
- Alderete, John D. 1999. *Morphologically governed accent in optimality theory*. Amherst: University of Massachusetts Amherst. (Doctoral dissertation).
- Alvarsson, Jan-Åke. 2012a. *Etnografía 'weenhayek, volumen 3. Belleza y utilidad – la cultura material* (Dissertations and Documents in Cultural Anthropology (DiCA) 13). Uppsala: Universidad de Uppsala.
- Alvarsson, Jan-Åke. 2012b. *Etnografía 'weenhayek, volumen 5. Ver y aprender – efectos socioculturales de la educación tradicional y bilingüe* (Dissertations and Documents in Cultural Anthropology (DiCA) 15). Uppsala: Universidad de Uppsala.
- Alvarsson, Jan-Åke & Kenneth Claesson. 2014. 'Weenhayek (mataco). In Mily Crevels & Pieter Muysken (eds.), *Lenguas de Bolivia. Tomo III: Oriente*, 415–465. La Paz: Plural.
- Anjos, Zoraide dos. 2011. *Fonología e gramática Katukina-Kanamari*. Utrecht: LOT.
- Arenas, Pastor & Gustavo F. Scarpa. 2007. Edible wild plants of the Chorote Indians, Gran Chaco, Argentina. *Botanical Journal of the Linnean Society* 153(1). 73–85. DOI: 10.1111/j.1095-8339.2007.00576.x.
- Avram, Megan Leigh Zdrojkowski. 2008. *A phonological description of Wichí: The dialect of Misión La Paz, Salta, Argentina*. Ypsilanti: Eastern Michigan University. (MA thesis).

References

- Bateman, Nicoleta. 2007. *A crosslinguistic investigation of palatalization*. San Diego: University of California, San Diego. (Doctoral dissertation).
- Beliaeff, Juan. 1931. Vocabulário maccá. *Revista de la Sociedad Científica del Paraguay* 3(2). 53–67.
- Beliaeff, Juan. 1934. El vocabulário maccá. Clave y apuntes gramaticales. *Revista de la Sociedad Científica del Paraguay* 3(4). 124–130.
- Bell, Alan. 1978. Syllabic consonants. In Joseph H. Greenberg, Charles A. Ferguson & Edith A. Moravcsik (eds.), *Universals of human language. Volume 2: Phonology*, 153–201. Stanford: Stanford University Press.
- Borise, Lena. 2021. Word stress in the languages of the Caucasus. In Maria Polinsky (ed.), *The Oxford handbook of the languages of the Caucasus*, 729–755. Oxford: Oxford University Press. DOI: 10.1093/oxfordhb/9780190690694.013.19.
- Braunstein, José. 1987. *El problema de la significación de la cultura material de los indios Maka*. Buenos Aires: Universidad Nacional de Buenos Aires. (Doctoral dissertation).
- Braunstein, José. 2009. Matako–dialecto bazanero (1989). Contribución para el Intercontinental Dictionary Series Worldlist [sic] editado por Mary Ritchie Key (Universidad de California en Irvine). In José Braunstein & Cristina Messineo (eds.), *Hacia una nueva carta étnica del Gran Chaco VIII*, 3–90. Las Lomitas: Centro del Hombre Antiguo Chaqueño (Chaco).
- Buckwalter, Alberto S. & Lois Litwiller de Buckwalter. 2013. Vocabulario toba. <https://chacoindigena.net/wp-content/uploads/2020/07/Vocabulario-Toba.pdf> (4 September, 2024).
- Buckwalter, Lois Litwiller de, Alberto S. Buckwalter & Roberto Ruiz. 2014. Vocabulario mocoví: recopilación en soporte digital. Villa Ángela. https://pueblosoriginarios.com/lenguas/mocovi/archivo/dicci_mocovi.pdf (4 September, 2024).
- Caballero, Gabriela. 2011. Morphologically conditioned stress assignment in Choguita Rarámuri. *Linguistics* 49(4). 749–790. DOI: 10.1515/ling.2011.023.
- Caballero, Gabriela & Lucien Carroll. 2015. Tone and stress in Choguita Rarámuri (Tarahumara) word prosody. *International Journal of American Linguistics* 81(4). 457–493. DOI: 10.1086/683157.
- Camargos, Lidiane Szerwinsk. 2013. *Consolidando uma proposta de família linguística Boróro: contribuição aos estudos histórico-comparativos do tronco Macro-Jê*. Brasília: Universidade de Brasília. (Doctoral dissertation).
- Campbell, Lyle. Submitted. Proto-Matacoan reconstruction. *International Journal of American Linguistics*.
- Campbell, Lyle, Luis Díaz & Fernando Ángel. 2020. *Nivaclé grammar*. Salt Lake City: The University of Utah Press.

- Campbell, Lyle & Verónica Grondona. 2007. Internal reconstruction in Chulupí (Nivaclé). *Diachronica* 24(1). 1–29. DOI: 10.1075/dia.24.1.02cam.
- Campbell, Lyle & Verónica Grondona. 2010. Who speaks what to whom? Multilingualism and language choice in Misión La Paz. *Language in Society* 39. 617–646. DOI: 10.1017/S0047404510000631.
- Campbell, Lyle & Verónica Grondona. 2012. Linguistic acculturation in Nivaclé and Chorote. *International Journal of American Linguistics* 78(3). 335–367. DOI: 10.1086/665672.
- Carol, Javier. 2009–2010. Causación en chorote (mataguayo). *Amerindia – Revue d’ethnolinguistique amérindienne* 33/34. 73–108.
- Carol, Javier. 2011. Aplicativos/adposiciones en chorote (mataguayo): algunos aspectos formales. *LIAMES: Línguas Indígenas Americanas* 11(1). 51–74. DOI: 10.20396/liames.v0i11.1496.
- Carol, Javier. 2014a. Esbozo fonológico del chorote (mataguayo). *LIAMES: Línguas Indígenas Americanas* 14(1). 73–103. DOI: 10.20396/liames.v0i14.1521.
- Carol, Javier. 2014b. *Lengua chorote (mataguayo): Estudio fonológico y morfosintáctico* (LINCOM Studies in Native American Linguistics 72). Munich: LINCOM Europa.
- Carol, Javier. 2018. *Inamtes jleeizi’ inkijwas ji’lij–kiláyi ji’lij. Diccionario bilingüe manjui–castellano*. Asunción: Paraguái Ñe’ënguéra Sãmbyhyha–Secretaría de Políticas Lingüísticas.
- Carol, Javier. Forthcoming. Palatalización y cambio de altura vocálica / grado de abertura en manjúi / chorote (mataguayo). *Amerindia – Revue d’ethnolinguistique amérindienne*.
- Carvalho, Fernando O. de. 2022. A new sound change for Guarani(an): Glottal prothesis, internal classification and the explanation of synchronic irregularities. *Folia Linguistica Historica* 56(s43-s1). 263–288. DOI: 10.1515/flin-2022-2026.
- Cayré Baito, Lorena. 2015. Una primera aproximación a la variación vocálica inter-dialectal en wichí. *LIAMES: Línguas Indígenas Americanas* 15(2). 355–374. DOI: 10.20396/liames.v15i2.8642306.
- Cayré Baito, Lorena & María Belén Carpio. 2009. Aproximación a los tipos de asimilación más frecuentes en wichí. In Ana Fernández Garay & Marisa Censabella (eds.), *Estudios fonológicos de continua dialectales: mapuche y wichí*, 83–109. Santa Rosa: Editorial de la Universidad Nacional de La Pampa.
- Censabella, Marisa. 2009. Sistema fonológico y sincronía dinámica de seis variedades orientales del continuum wichí. In Ana Fernández Garay & Marisa Censabella (eds.), *Estudios fonológicos de continua dialectales: mapuche y wichí*, 111–144. Santa Rosa: Editorial de la Universidad Nacional de La Pampa.

References

- Chase-Sardi, Miguel. 1972. *La situación actual de los indígenas del Paraguay*. Asunción: CEADUC–Centro de Estudios Antropológicos de la Universidad Católica “Nuestra Señora de la Asunción”.
- Ciucci, Luca. 2014. Tracce di contatto tra la famiglia zamuco (ayoreo, chamacoco) e altre lingue del Chaco: prime prospezioni. *Quaderni del Laboratorio di Linguistica della Scuola Normale Superiore* 13. 1–52.
- Ciucci, Luca. 2016. *Inflectional morphology in the Zamucoan languages* (Biblioteca Paraguaya de Antropología 103). Asunción: CEADUC–Centro de Estudios Antropológicos de la Universidad Católica “Nuestra Señora de la Asunción”.
- Ciucci, Luca. 2022. ‘Eye’ in the Zamucoan languages. In Melike Baş & Iwona Kraska-Szlenk (eds.), *Embodiment in Cross-Linguistic Studies: The ‘Eye’* (Brill’s Studies in Language, Cognition and Culture 31), 259–284. Leiden: Koninklijke Brill. DOI: 10.1163/9789004498594_014.
- Claesson, Kenneth. 1994. A phonological outline of Mataco-Noctenes. *International Journal of American Linguistics* 60(1). 1–38. DOI: 10.1086/466216.
- Claesson, Kenneth. 2016. *Notas sobre el vocabulario ’weenhayek*. <http://noctenes.org/onewebmedia/Vocabulario%20'weenhayek,%20publ.pdf> (31 December, 2021).
- Claesson, Kenneth. no date. Estructura silábica, acentuación y cantidad vocálica en ’weenhayek. <http://noctenes.org/onewebmedia/Rasgos%5C%5C%5C%20pros%5C%5C%5C%20C3%5C%5C%5C%B3dicos%5C%5C%5C%20en%5C%5C%5C%20E2%80%99weenhayek.pdf> (31 December, 2021).
- Clements, G. N. 1999. Affricates as noncontoured stops. In Osamu Fujimura, Brian D. Joseph & Bohumil Palek (eds.), *Proceedings of LP’98: Item order in language and speech*, 271–299. Prague: Karolinum Press.
- Coelho, Gail. 2002. Conflicting directionality in thompson river salis. In Augustine Agwuele & Hansang Park (eds.), *Proceedings of the Texas Linguistics Society VII*, 271–299. https://tls.ling.utexas.edu/2002/TLS_2002_Proceedings.html (4 September, 2024).
- Combès, Isabelle & Rodrigo Montani. 2020. Los diccionarios matacos de Fr. Esteban Primo de Ayala: Primer registro histórico de la lengua wichí. *Revista del Museo de Antropología* 13(3). 495–546. DOI: 10.31048/1852.4826.v13.n3.31065.
- Cúneo, Paola & Andrés Porta. 2009. Vocabulario toba sobre peces y aves. In José Braunstein & Cristina Messineo (eds.), *Hacia una nueva carta étnica del Gran Chaco VIII*, 237–252. Las Lomitas: Centro del Hombre Antiguo Chaqueño (Chaco).
- Daviet, Windy. 2016. *Observations sociolinguistiques et analyse de la phonologie du dialecte ava du guaraní bolivien, langue tupi–guaraní de Bolivie*. Lyon: Université Lumière Lyon 2. (MA thesis).

- de Castelnau, Francis. 1851. *Expedition dans les parties centrales de l'Amérique du Sud: de Rio de Janeiro à Lima, et de Lima au Para; exécutée par ordre du gouvernement français pendant les années 1843 à 1847, sous la direction de Francis de Castelnau. Histoire du voyage*, vol. 5. Paris: chez P. Bertrand.
- Demersay, L. Alfred. 1860. *Histoire physique, économique et politique du Paraguay et des établissements des jésuites*, vol. 1. Paris: Librairie de L. Hachette et C^{ie}.
- Dirección General de Estadística, Encuestas y Censos. 2014. *Pueblos indígenas en el Paraguay. Resultados finales de población y viviendas 2012*. Fernando de la Mora.
- Drayson, Nicholas, Sebastián Frías & Julián Gómez. 2000. *Sake' iyo ti iyo-jwa'jats'e'm. Somos chorotes – nuestras costumbres*. Tartagal: ASOCIANA.
- Drayson, Nicolás. 2009. 'Niwak samtis. Diccionario iyojwa'ja 'lij-kilay 'lij (chorote–castellano). In José Braunstein & Cristina Messineo (eds.), *Hacia una nueva carta étnica del Gran Chaco VIII*, 91–174. Las Lomitas: Centro del Hombre Antiguo Chaqueño (Chaco).
- Dybo, Vladimir Antonovič. 1995. Akcentuacionnye processy v jazykax gruppy teda–kanuri i problema proisxoždenija paradigmatičeskix akcentnyx sistem. *Moscow Linguistic Journal* 1. 236–279.
- Dybo, Vladimir Antonovič. 2000. *Morfologizovannye paradigmatičeskie akcentnye sistemy: Tipologija i genezis*, vol. 1. Moscow: Jazyki slavjanskoy kul'tury.
- Elliott, John A. 2021. *A grammar of Enxet Sur*. Honolulu: University of Hawai'i at Mānoa. (Doctoral dissertation).
- Fabre, Alain. 2005. *Diccionario etnolingüístico y guía bibliográfica de los pueblos indígenas sudamericanos*. <http://www.ling.fi/Diccionario%5C%20etnoling.htm> (4 September, 2024).
- Fabre, Alain. 2014. Estudio gramatical de la lengua nivacle. Kangasala. <http://www.etnolingüística.org/biblio:fabre-2014-estudio> (4 September, 2024).
- Fabre, Alain. 2016. *Gramática de la lengua nivaçle (familia mataguayo, Chaco paraguayo)* (LINCOM Studies in Native American Linguistics 78). Munich: LINCOM Europa.
- Fabre, Alain. 2018. Multifunctionality of the verbal suffix *-f'e ~ -k'e* and analepsis in Nivaçle (Mataguayo family, Gran Chaco region). *LIAMES: Línguas Indígenas Americanas* 2(18). 338–366. DOI: 10.20396/liames.v18n2.8653164.
- Fernández Garay, Ana. 2006–2007. El sistema fonológico del wichí del Paraje La Paz (Salta). *Anuario de la Facultad de Ciencias Humanas de la Universidad Nacional de La Pampa* 8. 209–222.
- Fernández Garay, Ana & Marisa Censabella. 2009. *Estudios fonológicos de continua dialectales: mapuche y wichí*. Santa Rosa: Editorial de la Universidad Nacional de La Pampa.

References

- Fernández Garay, Ana & Silvia A. Spinelli. 2009. Sincronía dinámica del sistema fonológico del wichí hablado en la Banda Norte del departamento Rivadavia, Salta. In Ana Fernández Garay & Marisa Censabella (eds.), *Estudios fonológicos de continua dialectales: mapuche y wichí*, 145–173. Santa Rosa: Editorial de la Universidad Nacional de La Pampa.
- Fritz, Miguel. 1997. “Nos han salvado”. *Misión: ¿destrucción o salvación? Comienzo de una misión entre etnocentrismo e inculturación*. Quito: Ediciones Abya Yala.
- Gerzenstein, Ana. 1978. *Lengua chorote. Tomo I* (Archivo de lenguas precolombinas 3). Buenos Aires: Universidad de Buenos Aires, Facultad de Filosofía y Letras, Instituto de Lingüística.
- Gerzenstein, Ana. 1979. *Lengua chorote. Tomo II* (Archivo de lenguas precolombinas 3). Buenos Aires: Universidad de Buenos Aires, Facultad de Filosofía y Letras, Instituto de Lingüística.
- Gerzenstein, Ana. 1983. *Lengua chorote. Variedad 2* (Archivo de lenguas precolombinas 4). Buenos Aires: Universidad de Buenos Aires, Facultad de Filosofía y Letras, Instituto de Lingüística.
- Gerzenstein, Ana. 1989. *Lengua maká: aspectos de la fonología*. Buenos Aires: Universidad de Buenos Aires, Facultad de Filosofía y Letras, Instituto de Lingüística.
- Gerzenstein, Ana. 1994. *Lengua maká. Estudio descriptivo* (Archivo de lenguas indoamericanas). Buenos Aires: Universidad de Buenos Aires, Facultad de Filosofía y Letras, Instituto de Lingüística.
- Gerzenstein, Ana. 1999. *Diccionario etnolingüístico maká-español. Índice español-maká* (Archivo de lenguas indoamericanas). Buenos Aires: Universidad de Buenos Aires, Facultad de Filosofía y Letras, Instituto de Lingüística.
- Gerzenstein, Ana & Beatriz Gualdieri. 2003. La armonía vocálica en lenguas chaqueñas de las familias guaycurú y mataguaya. *LIAMES: Línguas Indígenas Americanas* 3(1). 97–110. DOI: 10.20396/liames.v3i1.1415.
- Gildea, Spike & Doris Payne. 2007. Is Greenberg’s “Macro-Carib” viable? *Boletim do Museu Paraense Emílio Goeldi. Ciências Humanas* 2(2). 19–72. DOI: 10.1590/S1981-81222007000200003.
- Golston, Chris & Wolfgang Kehrein. 2013. A prosodic theory of laryngeal timing. In Jean Léo Léonard & Samia Naïm (eds.), *Base articulatoire arrière: Backing and backness* (LINCOM Studies in Phonology 1), 11–44. Munich: LINCOM Europa.
- Gomes, Antonio Almir Silva. 2012. *Sanapaná, uma língua Maskoy: aspectos gramaticais*. Campinas: Universidade Estadual de Campinas. (Doctoral dissertation).
- González, Hebe Alicia. 2005. *A grammar of Tapiete (Tupi-Guarani)*. Pittsburgh: University of Pittsburgh. (Doctoral dissertation).

- Gordon, Matthew & Peter Ladefoged. 2001. Phonation types: A cross-linguistic overview. *Journal of Phonetics* 29. 383–406. DOI: 10.006/jpho.2001.0147.
- Gutiérrez, Analía. 2015a. Evidential determiners in Nivaçle. *Anthropological Linguistics* 57(4). 412–443. DOI: 10.1353/anl.2016.0011.
- Gutiérrez, Analía. 2015b. *Segmental and prosodic complexity in Nivaçle: Laryngeals, laterals, and metathesis*. Vancouver: University of British Columbia. (Doctoral dissertation). DOI: 10.14288/1.0166445.
- Gutiérrez, Analía. 2016a. Nivaçle (*shichaam lhavos* variety). *Journal of the International Phonetic Association: Illustrations of the IPA*. DOI: 10.1017/S0025100316000335.
- Gutiérrez, Analía. 2016b. Patterns of (de)glottalization in Nivaçle. In Kyeong-min Kim, Pocholo Umbal, Trevor Block, Queenie Chan, Tanie Cheng, Kelli Finney, Mara Katz, Sophie Nickel-Thompson & Lisa Shorten (eds.), *Proceedings of the 33rd West Coast Conference on Formal Linguistics*, 176–185. Somerville: Cascadilla Proceedings Project.
- Gutiérrez, Analía. 2016c. The variable prosodic parsings of Nivaçle glottal stop. *LIAMES: Línguas Indígenas Americanas* 16(2). 323–347. DOI: 10.20396/liames.v16i2.8646180.
- Gutiérrez, Analía. 2019a. A reanalysis of Nivaçle \widehat{kl} and \ddot{t} : Phonetic, phonological, and typological evidence. *International Journal of American Linguistics* 85(1). 45–74. DOI: 10.1086/700318.
- Gutiérrez, Analía. 2019b. La palabra prosódica mínima en nivaçle. *Cuadernos de Lingüística de El Colegio de México* 6(1). e126. DOI: 10.24201/clecm.v6i1.126.
- Gutiérrez, Analía. 2020. Vowel–consonant metathesis in Nivaçle. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 65(2). 276–307. DOI: 10.1017/cnj.2020.4.
- Gutiérrez, Analía. Forthcoming. Desarrollo de interacciones entre glotal y sonorantes en lenguas mataguayas: el caso nivaçle. *Amerindia – Revue d’ethnolinguistique amérindienne*.
- Gutiérrez, Analía & Gonzalo Eduardo Espinosa. 2023. Propiedades acústicas de las oclusivas simples y eyectivas en nivaçle (mataguaya). *Quintú Quimün. Revista de lingüística* 7(2). DOI: 10.5281/zenodo.10082218.
- Gutiérrez, Analía & Verónica Nercesian. 2021. La glotal y la glotalización en las lenguas mataguayas. *Forma y Función* 34(1). DOI: 10.15446/fyf.v34n1.79328.
- Gutiérrez, Marcos & María Elina López Osornio. 2015. *Diccionario wichi: òlhämtes ta yameje m’ak elh (significado de las palabras)*. Buenos Aires: Dunken.
- Hall, Nancy. 2006. Cross-linguistic patterns of vowel intrusion. *Phonology* 23(3). 387–429. DOI: 10.1017/S0952675706000996.

References

- Hill, Jane H. & Kenneth C. Hill. 2006. Stress in the Cupan (Uto-Aztecan) languages. *International Journal of American Linguistics* 34(4). 233–241. DOI: 10.1086/465023.
- Hunt, Gordon. 1994. *Manjui dictionary*. Santa Rosa.
- Hunt, Richard J. 1913a. *El vejoz*. Buenos Aires: Universidad Nacional de La Plata, Coni Hnos.
- Hunt, Richard J. 1913b. Vocabularios español–inglés–vejoz. *Revista del Museo de La Plata* 23. 93–214.
- Hunt, Richard J. 1915. *El choroti o yófuaha: Con vocabularios lengua-enimaga o towothli y chunupi o suhin, y un mapa por el Reverendo H. T. M. Jones, M. A. (Oxon.)* Liverpool: Henry Young & Sons, Limited.
- Hunt, Richard J. 1937. *Mataco–English and English–Mataco dictionary (with grammatical notes)* (Ethnological Studies 5). Göteborg: Elanders Boktryckeri Aktiebolag.
- Hunt, Richard J. 1940. *Mataco grammar*. Tucumán: Instituto de Antropología.
- Instituto Nacional de Estadística. 2015. *Censo de población y vivienda 2012. Bolivia. Características de la población*. La Paz.
- Instituto Nacional de Estadística y Censos. 2024. *Censo nacional de población, hogares y viviendas 2022. Resultados definitivos. Población indígena o descendiente de pueblos indígenas u originarios*. Buenos Aires.
- Jakobson, Roman. 1963. Opyt fonologičeskogo podxoda k istoričeskim voprosam slavjanskoj akcentologii. In *American Contributions to the Fifth International Congress of Slavists, Sofia*, 1–26. The Hague: Mouton.
- Kalisch, Hannes. 2023. *Alhpeema vana. Las palabras de los guaná: diccionario básico de la lengua guaná con traducciones al guaraní y al castellano*. Ya'alve-Saanga/Asunción: Paraguái Ñe'ënguéra Sãmbyhyha–Secretaría de Políticas Lingüísticas/Nengvaanemquescoma Nempayvaam Enlhet.
- Kehrein, Wolfgang & Chris Golston. 2004. A prosodic theory of laryngeal contrasts. *Phonology* 21(3). 325–357. DOI: 10.1017/S0952675704000302.
- Kiparsky, Paul & Morris Halle. 1977. Towards a reconstruction of the Indo-European accent. In Larry M. Hyman (ed.), *Studies in stress and accent* (Southern California Occasional Papers in Linguistics 4), 209–238. Los Angeles: University of Southern California.
- Kodzasov, Sandro V. 1999. Fonetika. In Aleksandr E. Kibrik & Jakov G. Testelec (eds.), *Èlementy caxurskogo jazyka v tipologičeskom osveščeenii*, 14–47. Moscow: Nasledie.
- Kushnir, Yuriy. 2019. *Prosodic patterns in Lithuanian morphology*. Leipzig: Universität Leipzig. (Doctoral dissertation).

- Kysela, Vladimiro. 1931. Tribu indígena maccá. *Revista de la Sociedad Científica del Paraguay* 3(1). 43–49.
- Ladefoged, Peter & Ian Maddieson. 1996. *The sounds of the world's languages*. Oxford/Cambridge: Blackwell.
- Lafone Quevedo, Samuel A. 1910–1911. Las lenguas de tipo guaycurú y chiquito comparadas. *Revista del Museo de La Plata* 17. 7–68.
- Lehmann-Nitsche, Roberto. 1910–1911. Vocabulario chorote ó solote (Chaco occidental). *Revista del Museo de La Plata* 17. 111–130.
- Lunt, Roberto. 2016. *Diccionario de la lengua wichí: wichí–español*. Buenos Aires: Sociedad Bíblica Argentina.
- Mason, John A. 1950. The languages of South American Indians. In Julian H. Steward (ed.), *Handbook of South American Indians. Vol. 6: Physical anthropology, linguistics, and cultural geography of South American Indians* (Smithsonian Institution Bureau of American Ethnology's Bulletin 143), 157–317. Washington: Government Printing Office.
- Massei, Inocencio. 1895. 'Pater noster' y vocabulario. Dialecto Noctén. Con introducción y notas de Lafone Quevedo. *Boletín del Instituto Geográfico Argentino* 16(9–12). 343–390.
- Melvold, Janis Leanne. 1989. *Structure and stress in the phonology of Russian*. Cambridge: Massachusetts Institute of Technology. (Doctoral dissertation).
- Mendoza, Evelina & Marcelo Merino. 2019. *Nanufweshu. Nalhchefwen*. El Sauzalito–Sip'ohi.
- Messineo, Cristina. 2009. Vocabulario toba de Cerrito (Paraguay). In José Braunstein & Cristina Messineo (eds.), *Hacia una nueva carta étnica del Gran Chaco VIII*, 253–269. Las Lomitas: Centro del Hombre Antiguo Chaqueño (Chaco).
- Messineo, Cristina. 2015. Indexación y sistemas de alineamiento en maká (mataco-mataguayo). *UniverSOS: revista de lenguas indígenas y universos culturales* 12. 125–146.
- Messineo, Cristina & José Braunstein. 1990. Variantes lingüísticas del mataco. In José Braunstein (ed.), *Hacia una nueva carta étnica del Gran Chaco I*, 1–13. Las Lomitas: Centro del Hombre Antiguo Chaqueño (Chaco).
- Métraux, Alfred. 1942. Linguistic affinities of the Enimaga (Cochaboth) group. *American Anthropologist* 44. 720–721.
- Murray, Robert W. & Theo Vennemann. 1983. Sound change and syllable structure in Germanic phonology. *Language* 59(3). 514–528. DOI: 10.2307/413901.
- Najlis, Elena L. 1966. *Lengua abipona. Tomo II* (Archivo de lenguas precolombinas 1). Buenos Aires: Universidad de Buenos Aires, Facultad de Filosofía y Letras, Centro de Estudios Lingüísticos.

References

- Najlis, Elena L. 1968. Dialectos del matakó. *Anales de la Universidad del Salvador* 4. 232–241.
- Najlis, Elena L. 1971. Prematakó phonology. *International Journal of American Linguistics* 37(2). 128–130. DOI: 10.1086/465148.
- Najlis, Elena L. 1984. *Fonología de la protolengua mataguaya* (Cuadernos de Lingüística Indígena 9). Buenos Aires: Universidad de Buenos Aires, Facultad de Filosofía y Letras, Instituto de Lingüística.
- Nercesian, Verónica. 2014. *Wichi lhomtes: Estudio de la gramática y la interacción fonología–morfología–sintaxis–semántica* (LINCOM Studies in Native American Linguistics 74). Munich: LINCOM Europa.
- Nercesian, Verónica. 2019. Variación dialectal y diacrónica del objeto pronominal en wichí/weenhayek (mataguaya): paradigmas prefijante y sufijante. *Cuadernos de Lingüística de El Colegio de México* 6(1). e127. DOI: 10.24201/clecm.v6i1.127.
- Nercesian, Verónica. 2020. Lengua y territorio: variación histórica y dialectal del wichí/weenhayek (familia mataguaya). *Revista Del Museo De Antropología* 13(3). 477–494. DOI: 10.31048/1852.4826.v13.n3.28281.
- Nercesian, Verónica. 2021. *Wichi–siwele lhayhilh. Diccionario wichí–castellano*. Buenos Aires: INILSyT, Universidad Nacional de Formosa / IFLH, Universidad de Buenos Aires / DILA, CAICyT-CONICET. www.diccionariowichi.com.ar (13 January, 2024).
- Nercesian, Verónica & Mónica Amarilla. 2021. Aportes al estudio de la variación en wichí/weenhayek (mataguaya). Diferencias dialectales en el léxico. *Revista de Estudos da Linguagem* 29(1). 259–288. DOI: 10.17851/2237-2083.29.1.259-288.
- Nercesian, Verónica & Nicolás Arellano. 2023. Vowel shifts in Middle Wichi (Mataguayan family, South America). *Journal of Historical Linguistics*. DOI: 10.1075/jhl.22030.ner.
- Nikulín, Andrey. 2020. *Proto-Macro-jê: um estudo reconstrutivo*. Brasília: Universidade de Brasília. (Doctoral dissertation).
- Nikulín, Andrey. 2022. La fonología del acento en el chiquitano migueléño. *Cadernos de Etnolingüística* 10(1). e100110.
- Nikulín, Andrey & Javier Carol. 2024. *Annotated Swadesh wordlists for the Mataguayan group (Mataguayan family)*. George Starostin (ed.). Moscow/Santa Fe. <https://starlingdb.org/cgi-bin/response.cgi?root=new100&morpho=0&basename=new100%5C%5Cmat%5C%5Cmat&limit=-1> (2 June, 2024).
- Nikulín, Andrey & Fernando O. de Carvalho. 2018. Prehistoria de las lenguas y familias lingüísticas del Gran Chaco, de la meseta brasileña y cercanías: Propuesta de base de datos léxicos y resultados preliminares. In María Alejandra Regúnada, Silvia Andrea Spinelli & María Emilia Orden (eds.), *IV Encuentro de*

- Lenguas Indígenas Americanas–ELIA: libro de actas*, 545–560. Santa Rosa: Editorial de la Universidad Nacional de La Pampa.
- Nikulin, Andrey & Fernando O. de Carvalho. 2022. A revised reconstruction of the Proto-Tupian vowel system. *Boletim do Museu Paraense Emílio Goeldi. Ciências Humanas* 17(2). e20210035. DOI: 10.1590/2178-2547-BGOELDI-2021-0035.
- Nordenskiöld, Erland. 1919. *An ethno-geographical analysis of the material culture of two Indian tribes in the Gran Chaco* (Comparative Ethnographic Studies 1). Göteborg: Elanders Boktryckeri Aktiebolag.
- Parker, Gary J. 2013. *Trabajos de lingüística histórica quechua*. Lima: Fondo Editorial de la Pontificia Universidad Católica del Perú.
- Pelleschi, Giovanni. 1886. *Eight months on the Gran Chaco of the Argentine Republic*. London: Gilbert & Rivington.
- Pelleschi, Giovanni. 1897. Los indios mataguayos y su lengua (con nota de Lafone Quevedo). *Boletín del Instituto Geográfico Argentino* 18(4–6). 173–350.
- Peña, Enrique. 1898. Etnografía del Chaco: manuscrito del capitán de fragata D. Juan Francisco Aguirre (1793). *Boletín del Instituto Geográfico Argentino* 19. 464–510.
- Remedi, Joaquín. 1896. Los indios maticos y su lengua. Con vocabulario ordenado por Lafone Quevedo. *Boletín del Instituto Geográfico Argentino* 17.
- Rodrigues, Aryon Dall’Igna. 2013. A case of affinity among Tupí, Karíb, and Macro-Jê. *Revista Brasileira de Linguística Antropológica* 1(1). 139–167. DOI: 10.26512/rbla.v1i1.12289.
- Rubach, Jerzy. 1994. Affricates as strident stops in Polish. *Linguistic Inquiry* 25(1). 119–143.
- Rzyski, Christoph, Tiago Tresoldi, Simon J. Greenhill, Mei-Shin Wu, Nathanael E. Schweikhard, Maria Koptjevskaja-Tamm, Volker Gast, Timotheus A. Bodt, Abbie Hantgan, Gereon A. Kaiping, Sophie Chang, Yunfan Lai, Natalia Morozova, Heini Arjava, Nataliia Hübler, Ezequiel Koile, Steve Pepper, Mariann Proos, Briana Van Epps, Ingrid Blanco, Carolin Hundt, Sergei Monakhov, Kristina Pianykh, Sallona Ramesh, Russell D. Gray, Robert Forkel & Johann-Mattis List. 2019. *The Database of Cross-Linguistic Colexifications, reproducible analysis of cross-linguistic polysemies: ‘ear’ and ‘shoulder’*. DOI: 10.1038/s41597-019-0341-x. <https://clics.clld.org/edges/1247-1482> (20 October, 2020).
- Salanova, Andrés Pablo & Andrey Nikulin. Forthcoming. A typology of relationalizing and absolutizing morphology in lowland South American languages. *International Journal of American Linguistics* 91(1).
- Scarpa, Gustavo F. 2010. Hacia una etnotaxonomía vegetal chorote II: clasificación de las plantas entre las parcialidades iyowjá’ja e iyowújwa del Chaco argentino. In Cristina Messineo, Gustavo F. Scarpa & Florencia C. Tola (eds.),

References

- Léxico y categorización etnobiológica en grupos indígenas del Gran Chaco*, 157–198. Santa Rosa: Editorial de la Universidad Nacional de La Pampa.
- Schmidt, Max. 1936. Los Makká en comparación con los Enimagá antiguos. *Revista de la Sociedad Científica del Paraguay* 3(6). 152–157.
- Schmidt, Max. 1937. Vocabulario de la lengua maká. *Revista de la Sociedad Científica del Paraguay* 4(2). 68–85.
- Seelwische, José. 2016. *Nuevo diccionario nivaçle–castellano. Tercera edición mejorada* (Biblioteca Paraguaya de Antropología 94). Asunción: CEADUC–Centro de Estudios Antropológicos de la Universidad Católica “Nuestra Señora de la Asunción”.
- Siffredi, Alejandra. 1982. *Temporalidad y espacio en la cosmovisión chorotemontaraz*. Buenos Aires: Universidad de Buenos Aires. (Doctoral dissertation).
- Silva, Mário André Coelho da. Forthcoming. As vogais do Yaathê e conseqüências para sua classificação genética. *Amerindia – Revue d’ethnolinguistique amérindienne*.
- Spagarino, Carlos. 2008. Ampliación de tierras de la comunidad wichí Lote 27. Relevamiento de recursos naturales y propuesta de manejo. <https://redaf.org.ar/wp-content/uploads/2008/10/ampliacion-de-tierras-de-la-comunidad-wichi-lote-27.pdf> (4 September, 2024).
- Spagarino, Carlos, Francisco López, Paulino Ruíz & Verónica Nercesian. 2013 [2011]. Nomenclatura wichí de aves. In Verónica Nercesian (ed.), *Lengua wichí*. <https://lenguawichi.com.ar/cultura/nomenclatura-wichi-de-aves> (4 September, 2024).
- Spinelli, Silvia A. 2007. El sistema fonológico de la lengua wichí: Misión Santa María. In Ana Valentina Fernández Garay & Marisa Malvestitti (eds.), *Estudios lingüísticos y sociolingüísticos de lenguas indígenas sudamericanas*, 159–173. Santa Rosa: Editorial de la Universidad Nacional de La Pampa.
- Spinelli, Silvia A. 2015. Aumento de la valencia verbal en wichí: causativos y aplicativos. In Ana Valentina Fernández Garay & María Alejandra Regúnaga (eds.), *Lingüística indígena sudamericana*, 159–178. Buenos Aires: Editorial de la Facultad de Filosofía y Letras, Universidad de Buenos Aires.
- Sposato, Adam. 2021. *A grammar of Xong* (Mouton Grammar Library 84). Berlin/Boston: De Gruyter Mouton. DOI: 10.1515/9783110764932.
- Spruit, Arie. 1985. Stress in Abkhaz. *Studia Caucasica* 6. 31–81.
- Starostin, George. 2011–2019. *The Global Lexicostatistical Database*. Moscow/Santa Fe. <https://starlingdb.org/new100/> (2 June, 2024).
- Stell, Nélica Noemí. 1987. *Gramática descriptiva de la lengua niwakle (chulupi)*. Buenos Aires: Universidad Nacional de Buenos Aires. (Doctoral dissertation).

- Suárez, María Eugenia. 2014. *Etnobotánica wichí del bosque xerófito en el Chaco semiárido salteño*. Don Torcuato: Autores de Argentina.
- Tacconi, Temis Lucía. 2015. *Formación de palabras en maká (mataguayo)*. Buenos Aires: Universidad de Buenos Aires. (Doctoral dissertation).
- Tekombo'e ha Tembikuaa Motenondeha. 2020. *Vocabulario de etnomatemática Maká*.
- Terraza, Jimena. 2009a. El repertorio fonológico del wichí de Rivadavia. In Ana Fernández Garay & Marisa Censabella (eds.), *Estudios fonológicos de continua dialectales: mapuche y wichí*, 41–82. Santa Rosa: Editorial de la Universidad Nacional de La Pampa.
- Terraza, Jimena. 2009b. *Grammaire du wichí : phonologie et morphosyntaxe*. Montréal: Université du Québec à Montréal. (Doctoral dissertation).
- Thompson, Laurence C. & M. Terry Thompson. 1992. *The Thompson language* (University of Montana Occasional Papers in Linguistics 8). Missoula: University of Montana.
- Tovar, Antonio. 1961. *Catálogo de lenguas de América del Sur: enumeración, con indicaciones tipológicas, bibliografía y mapas*. Buenos Aires: Sudamericana.
- Tovar, Antonio. 1964. Relación entre las lenguas del grupo mataco. In *Homenaje a Fernando Márquez Miranda, arqueólogo e historiador de América. Ofrenda de sus amigos y admiradores*, 370–377. Madrid: Universidades de Madrid y Sevilla.
- Tripp, Robert. 1995. *Diccionario amarakaeri–castellano* (Serie Lingüística Peruana 34). Lima: Ministerio de Educación/Instituto Lingüístico de Verano.
- UNICEF & Tekombo'e ha Tembikuaa Motenondeha. 2022. *Pueblo Maká: Afiche. Ficha de alfabetos. Ficha de letras móviles. Ficha de sílabas móviles*. <https://www.unicef.org/paraguay/media/8481/file/Pueblo%20Maka.pdf> (4 September, 2024).
- Unruh, Ernesto & Hannes Kalisch. 1997. *Moya'ansaeclha' nengelpayvaam nengeltomha enlhet* (Biblioteca Paraguaya de Antropología 27). Ya'alve-Saanga: Nengvaanemquescama Nempayvaam Enlhet.
- Unruh, Ernesto, Hannes Kalisch & Manolo Romero. 2003. *Enenlhet apaivoma: nentengiai'a nengiangveiakmoho neliatekamaha enenlhet apaivoma. Guía para el aprendizaje del idioma materno toba* (Biblioteca Paraguaya de Antropología 43). Ya'alve-Saanga: Nengvaanemquescama Nempayvaam Enlhet.
- Unu'uneiki Patricia. 2011. *ƛetsetitits nama'f'ajinvawetji*. In Guillermo Sequera (ed.), *Historias de vida*, 12–21. Fernando de la Mora: Tetã Viru Mohendapy Motenondeha/Fundación Roa Bastos.
- Vasilyev, Mikhail & Mikhail Saenko. 2017. K voprosu o točnosti glottoxronologii: datirovanie jazykovej divergencii po dannym romanskix jazykov. *Journal of Language Relationship* 15(2). 114–135. DOI: 10.31826/jlr-2017-151-213.

References

- Vidal, Alejandra. 2001. *Pilagá grammar (Guaykuruan family, Argentina)*. Eugene: University of Oregon. (Doctoral dissertation).
- Viegas Barros, J. Pedro. 1993. ¿Existe una relación genética entre las lenguas mataguayas y guaycurúes? In José Braunstein (ed.), *Hacia una nueva carta étnica del Gran Chaco V*, 193–213. Las Lomitas: Centro del Hombre Antiguo Chaqueño.
- Viegas Barros, J. Pedro. 2002. Fonología del proto-mataguayo: las fricativas dorsales. In Mily Crevels, Simon van de Kerke, Sérgio Meira & Hein van der Voort (eds.), *Current studies on South American languages* (Indigenous Languages of Latin America 3), 137–148. Leiden: Research School of Asian, African, & Amerindian Studies (CNWS).
- Viegas Barros, J. Pedro. 2004. Guaicurú no, Macro-Guaicurú sí: una hipótesis sobre la clasificación de la lengua Guachí (Mato Grosso do Sul, Brasil). https://www.academia.edu/26789499/GUAICUR%5C%C3%5C%9A_NO_MACRO_GUAICUR%5C%C3%5C%9A_S%5C%C3%5C%8D_UNA_HIP%5C%C3%5C%93TESIS_SOBRE_LA_CLASIFICACI%5C%C3%5C%93N_DE_LA LENGUA_GUACH%5C%C3%5C%8D_MATO_GROSSO_DO_SUL_BRASIL_ (4 September, 2024).
- Viegas Barros, J. Pedro. 2005. Algunas semejanzas gramaticales macro-guaicurú–macro-jê. <http://www.etnolingüística.org/artigo:viegas-barros-2005> (4 September, 2024).
- Viegas Barros, J. Pedro. 2013a. La hipótesis de parentesco guaicurú–mataguayo: estado actual de la cuestión. *Revista Brasileira de Linguística Antropológica* 5(2). 293–333. DOI: 10.26512/rbla.v5i2.16269.
- Viegas Barros, J. Pedro. 2013b. *Proto-guaicurú: una reconstrucción fonológica, léxica y morfológica* (LINCOM Studies in Native American Linguistics 69). Munich: LINCOM Europa.
- Viñas Urquiza, María Teresa. 1974. *Lengua mataca. Tomo 2* (Archivo de lenguas precolombinas 2). Buenos Aires: Universidad de Buenos Aires, Facultad de Filosofía y Letras, Centro de Estudios Lingüísticos.
- Watkins, Calvert. 1962. *Indo-European origins of the Celtic verb: sigmatic aorist*. Dublin: Dublin Institute for Advanced Studies.
- Wheeler, Paige Erin. 2020. *Consonants and syllable structure in Angaité (Enlhet–Enenlhet)*. Austin: University of Texas at Austin. (MA thesis). DOI: 10.26153/tsw/11805.
- Zaliznjak, Andrej Anatol’jevič. 1985. *Ot praslavjanskoj akcentuacii k russkoj*. Moscow: Nauka.

Name index

- Adelaar, Willem F. H., 13, 14
Aguirre, Juan Francisco, 219, 488
Alderete, John D., 193
Alvarsson, Jan-Åke, 8, 365, 415, 462,
525, 574, 575, 577–580, 582,
584–592, 604, 607
Amarilla, Mónica, 17, 416, 417, 485
Anjos, Zoraide dos, 14
Arellano, Nicolás, 17, 454
Arenas, Pastor, 510
Avram, Megan Leigh Zdrojkowski, 17,
417, 418, 420, 421, 424–427,
429, 431, 433, 436, 439–441,
443, 444, 446, 452, 453, 458,
459, 464, 465
- Bateman, Nicoleta, 328
Beliaeff, Juan, 3, 556
Bell, Alan, 110
Borise, Lena, 194
Braunstein, José, 3, 8, 211, 234, 365,
391, 418, 420, 422, 432, 436,
443–445, 453, 455, 457, 461,
468, 470, 471, 473, 475, 477,
478, 483–488, 491, 494, 496–
498, 504–506, 508, 513, 514,
516, 519, 521, 524, 527, 530,
531, 534, 535, 537, 541–543,
546, 547, 549–551, 556–563,
565–567, 570, 573, 588, 593–
596, 598–603, 605, 608, 609,
611, 614–616, 618–627, 629–
632, 634–637
- Buckwalter, Alberto S., 473, 493, 512
Buckwalter, Lois Litwiller de, 467, 471,
473, 493, 512
- Caballero, Gabriela, 193
Camargos, Lidiane Szerwinski, 14
Campbell, Lyle, 5, 10, 17, 18, 21, 38,
52, 92, 94, 117, 118, 176, 195,
203, 235–237, 249–255, 264,
270, 272–275, 277, 278, 289,
468–470, 472, 473, 478–480,
483, 484, 487–492, 494, 496,
498–502, 505–507, 511, 512,
515–517, 519, 520, 522, 526–
531, 533, 534, 536–545, 552,
554, 555, 557, 558, 561–564,
566, 567, 570, 572–576, 578–
585, 588, 590, 591, 593–600,
602, 603, 608, 611, 616, 618,
630–636, 640, 641
- Carol, Javier, 7, 8, 17, 45, 49, 83, 91–
94, 105, 121, 122, 135, 167, 170,
182, 186, 187, 195–197, 203,
206, 208, 279, 280, 283, 286,
289, 291, 295–298, 305, 306,
318, 321, 325–328, 335–338,
344, 346–349, 354, 358, 359,
363, 468–518, 520–592, 594,
598, 604–625, 628, 629, 631–
637
- Carpio, María Belén, 396, 418, 420,
434, 438, 450, 460, 462, 463

Name index

- Carroll, Lucien, 193
Carvalho, Fernando O. de, 13, 14, 387
Cayré Baito, Lorena, 17, 396, 417, 418,
420, 422, 423, 434, 438, 450,
454–458, 460, 462, 463
Censabella, Marisa, 17, 373, 412, 417,
418, 420–425, 427, 428, 431–
436, 445, 447, 449, 450, 453,
457
Chase-Sardi, Miguel, 3
Ciucci, Luca, 13, 14
Claesson, Kenneth, 8, 16, 37, 83, 91–
95, 105, 115, 116, 120, 122, 135,
167, 173, 180–183, 187, 192, 195–
197, 203, 208, 365, 372, 373,
375, 379–381, 391, 392, 395–
397, 404, 407, 408, 410–412,
415, 416, 418, 420, 427, 428,
432–434, 436, 437, 440, 441,
443–445, 449, 450, 453–455,
461–463, 468–516, 518–582,
584–592, 594, 602, 604–637
Clements, G. N., 25
Coelho, Gail, 194
Combès, Isabelle, 8, 417
Cúneo, Paola, 513, 541

Daviet, Windy, 360
de Castelnau, Francis, 636
Demersay, L. Alfred, 3, 212, 469, 597
Drayson, Nicholas, 476
Drayson, Nicolás, 7, 114, 135, 169, 279,
295, 318, 326, 332, 353, 359,
467–573, 575, 578–590, 594,
604–637
Dybo, Vladimir Antonovič, 194
Elliott, John A., 475, 521, 532, 552, 554,
556, 602, 632, 633, 640
Espinosa, Gonzalo Eduardo, 5, 83
Fabre, Alain, 5, 10, 17, 34, 235, 249,
250, 254, 273, 278, 470, 474–
476, 500–502, 515, 518, 521,
526, 532–534, 544, 546, 547,
549, 551, 552, 554–556, 559,
574–582, 585–592, 596, 602,
632, 633, 640, 641
Fernández Garay, Ana, 17, 417, 420–
422, 424, 427, 429, 431–436,
438, 439, 441, 444, 446, 448,
450–453, 458–460, 465, 468,
477, 481, 491, 496, 527, 534,
538, 549, 551, 554, 557, 561,
564, 567, 570, 614, 615
Fritz, Miguel, 237
Gerzenstein, Ana, 3, 7, 17, 34, 38, 47,
88, 90, 91, 108, 111, 112, 117–
120, 122, 135, 167, 169, 189,
196–198, 203, 205, 211–214,
217–219, 230–234, 279, 286,
289, 291, 296, 306, 318, 326–
328, 330–332, 335, 336, 343,
344, 347–349, 353, 468–625,
629–637
Gildea, Spike, 14
Golston, Chris, 91, 95
Gomes, Antonio Almir Silva, 532, 533,
554, 556, 559
González, Hebe Alicia, 635
Gordon, Matthew, 83, 95
Grondona, Verónica, 10, 18, 21, 195,
203, 252, 289, 473, 479, 483,
484, 488, 490–492, 494, 496,
498–502, 505, 506, 511, 512,
515, 519, 520, 522, 526–528,
530, 533, 534, 536–541, 544,

- 554, 555, 557, 558, 562, 563,
566, 573, 576, 594–596, 602,
603, 608, 611, 616, 618, 631,
633–636, 640, 641
- Gualdieri, Beatriz, 111, 231–233
- Gutiérrez, Analía, 4, 5, 17, 37, 45, 52,
83, 91, 92, 95, 112, 113, 129,
176, 184, 186, 190, 195–198, 205–
208, 211, 235–237, 250–253,
255, 256, 258, 260, 261, 263–
267, 269–273, 275–277, 469,
473, 479, 488, 490, 492, 499,
500, 502, 504–506, 508, 509,
517, 522, 526, 528, 529, 531,
534, 536, 537, 539, 544, 548,
552–554, 556–559, 561, 563,
564, 569, 573, 576, 581–586,
596, 599, 603, 633, 639
- Gutiérrez, Marcos, 8, 365, 391, 417, 420,
422, 430, 436, 441–446, 448–
450, 453, 460, 470, 471, 475,
477–479, 481, 482, 484–488,
490–494, 496, 498–506, 509–
511, 514–516, 518, 520–525, 527–
531, 533–535, 537, 540–544,
546, 548–554, 556–559, 561–
563, 565, 569, 570, 572, 573,
580, 584, 589–591, 602, 604–
618, 620–623, 625, 626, 628,
629, 633
- Hall, Nancy, 320
- Halle, Morris, 194
- Hill, Jane H., 193
- Hill, Kenneth C., 193
- Hunt, Gordon, 6, 7, 187, 321, 327, 328,
470, 477, 478, 487, 493, 517,
526, 555, 579, 606, 607, 613,
616, 630
- Hunt, Richard J., 3–6, 8, 219, 445, 468,
472, 473, 488, 506, 510, 523,
538, 564, 568, 571, 586, 590,
610, 623, 624
- Jakobson, Roman, 163
- Kalisch, Hannes, 475, 521, 532, 533,
544, 549, 552, 554, 556, 559,
602, 632, 633
- Kehrein, Wolfgang, 91, 95
- Kiparsky, Paul, 194
- Kodzasov, Sandro V., 329
- Kushnir, Yuriy, 194
- Kysela, Vladimiro, 3
- Ladefoged, Peter, 83, 95, 328
- Lafone Quevedo, Samuel A., 13
- Lehmann-Nitsche, Roberto, 6, 8, 573
- Lunt, Roberto, 454, 471, 473, 475, 483,
484, 542, 543, 553, 564, 567,
573, 606, 607, 609, 612–614,
618, 628–630, 633, 634, 636
- Maddieson, Ian, 328
- Mason, John A., 16
- Massei, Inocencio, 8
- Melvold, Janis Leanne, 194
- Mendoza, Evelina, 630
- Merino, Marcelo, 630
- Messineo, Cristina, 1, 3, 390, 457, 571,
585–587, 589, 590
- Métraux, Alfred, 16
- Montani, Rodrigo, 8, 417
- Murray, Robert W., 205
- Najlis, Elena L., 17, 416, 417, 431, 454,
467, 468, 471, 473–475, 478–
480, 482–488, 490–493, 495–
500, 502–507, 509–511, 513,

Name index

- 515, 516, 518–521, 525–533,
537–541, 544, 546, 547, 550–
557, 559, 561, 562, 566–575,
587, 590, 592, 594, 596, 600,
604, 606–627, 629–637
- Nercesian, Verónica, 8, 17, 37, 38, 75,
83, 91, 92, 94, 115, 116, 123,
176, 195–197, 203, 208, 365,
372–375, 379, 380, 386–388,
391, 393, 397, 404, 410, 411,
413, 415–418, 420, 422–424,
427, 428, 430, 432, 433, 436,
437, 440, 441, 443–445, 447,
449, 453, 454, 456, 461, 463–
466, 468–483, 485–493, 495–
516, 518–529, 531–536, 538–
582, 584–592, 602, 604–631,
633, 634, 636, 639
- Nikulín, Andrey, 8, 13, 14, 20, 194
- Nordenskiöld, Erland, 635
- Osornio, María Elina López, 8, 365,
391, 417, 420, 422, 430, 436,
441–446, 448–450, 453, 460,
470, 471, 475, 477–479, 481,
482, 484–488, 490–494, 496,
498–506, 509–511, 514–516,
518, 520–525, 527–531, 533–
535, 537, 540–544, 546, 548–
554, 556–559, 561–563, 565,
569, 570, 572, 573, 580, 584,
589–591, 602, 604–618, 620–
623, 625, 626, 628, 629, 633
- Parker, Gary J., 387
- Payne, Doris, 14
- Pelleschi, Giovanni, 8
- Peña, Enrique, 219, 514, 564
- Porta, Andrés, 513, 541
- Remedi, Joaquín, 8
- Rodrigues, Aryon Dall’Igna, 13
- Rubach, Jerzy, 25
- Rzyski, Christoph, 492
- Saenko, Mikhail, 9
- Salanova, Andrés Pablo, 20
- Scarpa, Gustavo F., 7, 279, 484, 506,
510, 514, 527, 530, 542, 544–
546, 605, 621, 624
- Schmidt, Max, 3
- Seelwische, José, 5, 93, 113, 121, 184,
203, 207, 235, 237, 249, 254,
258, 261, 265, 269, 272, 273,
276, 277, 467–574, 577–580,
582, 585–587, 589, 590, 592–
603, 608, 610, 616, 625, 627,
630–635, 637
- Siffredi, Alejandra, 327
- Silva, Mário André Coelho da, 14
- Spagarino, Carlos, 8, 365, 444, 447,
479, 484, 489, 492, 498, 501,
508, 511, 514, 520, 523, 530,
535, 538, 541, 542, 545, 546,
548, 555–557, 563, 565, 605,
610, 614, 615, 617, 620–622,
624, 626–629, 631, 634–636
- Spinelli, Silvia A., 17, 417, 420–422,
426, 429, 431, 433, 435, 436,
439, 441, 443, 444, 446, 447,
450–453, 458–460, 465, 481
- Sposato, Adam, 329
- Spruit, Arie, 194
- Starostin, George, 8
- Stell, Nélide Noemí, 4, 5, 235, 237, 249,
251, 252, 254, 264, 269–278,
472, 522, 525, 529, 535, 552,
555, 559

- Suárez, María Eugenia, 8, 365, 443,
513, 514, 527, 530, 541, 542,
545–548, 555, 557, 565, 605,
610, 617, 621, 626, 634
- Tacconi, Temis Lucía, 3, 590
- Tekombo'e ha Tembikuaa Motenondeha,
3, 211, 213, 214, 234, 491, 492,
501, 503, 505, 514, 522, 530,
542, 544, 548, 550, 553, 554,
556, 557, 559, 562, 563, 565,
569, 576, 577, 593, 594, 596,
602, 603, 632, 633, 635
- Terraza, Jimena, 8, 17, 37, 372, 375,
380, 381, 386, 391, 395, 397,
406, 410, 412, 415, 418, 420,
424, 427, 428, 432, 434–436,
438, 440, 442–445, 448, 449,
453, 455, 456, 460–464, 471,
506, 586, 588, 590
- Thompson, Laurence C., 194
- Thompson, M. Terry, 194
- Tovar, Antonio, 8, 10, 416, 417
- Tripp, Robert, 14
- Unruh, Ernesto, 475, 521, 532, 533, 544,
549, 552, 554, 556, 559, 602,
632, 633
- Unu'üneiki Patricia, 3, 211, 213, 214,
548, 551, 556, 562, 575, 597,
603
- Vasilyev, Mikhail, 9
- Vennemann, Theo, 205
- Vidal, Alejandra, 473
- Viegas Barros, J. Pedro, 3, 10–13, 17–
19, 25, 468–477, 479, 481–485,
487, 489, 499, 503–506, 508,
510, 511, 513–518, 520–522, 525–
527, 531, 533–539, 541, 543,
544, 546, 547, 550, 551, 554–
557, 559, 560, 562, 563, 567–
571, 574–581, 583–586, 588–
594, 596, 597, 599, 600, 602–
604, 606, 607, 611, 614, 616,
618, 619, 623, 625–627, 630,
632, 633, 635, 636, 639–642
- Viñas Urquiza, María Teresa, 8, 365,
391, 417, 420, 422, 429, 431,
433, 436, 441–446, 448, 450,
452–455, 460, 468–488, 490,
491, 493–500, 502–516, 518–
538, 540, 541, 543–546, 548–
574, 579, 580, 582, 588, 591,
594, 602, 604–631, 633, 636,
637
- Watkins, Calvert, 412
- Wheeler, Paige Erin, 521, 552, 554, 632,
633
- Zaliznjak, Andrej Anatol'jevič, 194

Historical phonology of Mataguayan

This book discusses the phonological history of Mataguayan, a language family that includes no less than four distinct languages – Maká, Nivaçle, Chorote, and Wichí – spoken by ca. 65.000 individuals in the Southern Chaco region in Argentina, Paraguay, and Bolivia. The book starts by offering a phonological reconstruction of Proto-Mataguayan, with separate chapters dedicated to its consonants, vowels, word-level prosody, and morphophonological alternations. This is followed by an outline of the phonological evolution of each Mataguayan language all the way from Proto-Mataguayan to contemporary lects, with a special attention to the dialectal diversity of Nivaçle, Chorote, and Wichí. The study concludes with an etymological dictionary of Mataguayan, where known cognate sets are accompanied by comments on phonetic irregularities, semantic shifts, possible cognates in the neighbouring Guaicuruan family, and references to earlier studies.